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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

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## Original Communications.

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### A CASE OF DOUBLE UTERUS AND VAGINA WITH PREGNANCY AND DELIVERY.\*

BY J. R. WEIST, M. D.

While irregularities in the development of the uterus and vagina are sufficiently common to occasion when met with no surprise to the anatomist or physiologist, they are so rare that the general practitioner seldom meets with a case in which there is so wide a departure from the normal condition as to give rise to a double uterus and vagina. Having lately had under observation a case of this kind, it seems worth while to report it, especially as I had the good fortune to observe the phenomena presented by the case during gestation and delivery.

Mrs. S., a married German woman, twenty-eight years old, presented herself for examination and treatment for dysmenorrhea in December, 1881. She said menstruation first appeared during her thirteenth year, and had continued regularly, but great pain usually preceded and accompanied the flow. In every other respect her health had always been good. She was five feet six inches in height, weighed one hundred and forty-

\*Read before the Delaware District Medical Society.

five pounds, and presented all the general appearances of perfect development and good health. She had been married five years, but had never been pregnant; there was no bar to sexual intercourse.

The external organs of generation were perfectly developed, but on examination a fleshy septum was found dividing the vagina into two equal parts; the lower portion of this septum was attached as far forward as the posterior lip of the meatus urinarius, and behind to the posterior commissure of the labia. It was attached along the middle line of the anterior and posterior walls of the vagina, and to the uterus above. This septum was about one fourth of an inch thick, was flaccid and readily pushed against the lateral wall of the vagina when the finger or a speculum was introduced on either side, therefore when either canal was examined the vagina appeared of ample size. The indications observed led to the conclusion that one side had been used as much as the other in sexual intercourse.

In both vaginæ a cervix uteri was found, with the os in a normal position, a superficial examination detecting no variation from the usual condition, except that toward the middle line of the body the uterine neck did not project freely into the vagina, being attached on this side, to within a quarter of an inch of the margin of the os, to the vaginal septum. The distance from one os to the other was three fourths of an inch. A small sound entered the uterus on either side two and a half inches. Using two sounds at the same time, one on each side, the ends in the uterus could not be brought into contact. Evidently two distinct uterine cavities existed. By a rectal examination while the uterus was well drawn down by a large tenaculum the size and shape of the compound organ could be readily made out; the upper part of the body appeared to be about two and a half inches in transverse diameter, and the lower part of the cervix one and a half inches, the length and antero-posterior diameter about normal. The fundus presented at the middle line a notch or depression about half an inch in depth. All of these conditions were not made out at one time, the patient being kind

enough to permit repeated examinations by myself and other medical gentlemen.

The conclusions reached in relation to the case are apparent. No treatment was advised or practiced beyond a slight dilation of both cervical canals.

Various forms of duplication of the uterus in the human female have been met with and described; of these the *uterus duplex separatus*, or *didelphys*, is the rarest. In these cases the two uteri are entirely separate from each other, with generally completely separate vaginæ. Two other forms have been met with, the *uterus bicornis*, and the *uterus septus*. In the former the two cornua are more or less completely separated, while the cervixes, or these and a part of the bodies, are united. Sometimes a septum completely divides the two organs, in others one cervical canal is common to both.

In the *uterus septus* the cornua are not separated, but the externally normal organ is divided by an internal longitudinal septum into two halves, the division being either total or partial. A divided body may be associated with a single os, or a single body with a double os. Either of these forms may be associated with a single or double vagina. My patient, it will be seen, presented an example of *uterus bicornis*, the duplication both as to the uterus and vagina being complete.

The manner in which these abnormalities occur is easily understood when the method of the formation of the internal organs of generation is recalled.

During fetal life the fallopian tubes and the uterus are formed from "Muller's Ducts;" the upper portions remaining separate are transformed into the fallopian tubes, while the lower portions come into contact and form a single tube, by a disappearance of the internal walls, which is ultimately changed into the uterus and vagina. When this union of Muller's ducts is incomplete, two more or less complete tubes remain, out of which a double organ (or organs) is formed.

In the lower animals these ducts unite less completely than in the human subject, in consequence of which the uterus

remains divided at its upper portion, running out into two long conical tubes or cornua, the complete *uterus bicornis*. Even in the human female, while the fusion of the two lateral halves of the uterus is usually complete, the cavity of the organ presents a strongly marked triangular form, the vestige of its original division.

In March, 1882, Mrs. S. became pregnant, and during the progress of gestation I was permitted to make frequent examinations, and noted with much interest the phenomena presented.

At the end of the fourth month I was able to discover that the fetus occupied the left side of the uterus. At this time the right cervix, which before pregnancy was as large as the left, was decidedly smaller, softer, and higher up; these changes continued to increase until the time of labor, when the right cervix had seemingly entirely disappeared. It will be remembered that in the unimpregnated state the right uterine cavity had a depth of two and a half inches. During gestation the sound was frequently passed into this side, an operation attended with no difficulty, and a constantly increasing depth noted until the time of labor, when it denoted a depth of six inches.

Labor came on at the time expected, and a careful examination was made at an early period. An inspection of the abdomen revealed that fully two thirds of the uterine tumor was to the left of the middle line, the left os was an inch in diameter, and only different from a normal case in that the utero-vaginal junction was much nearer its edge toward the middle line of the body than elsewhere. When the finger was passed into the right vagina, no trace of os or cervix could be easily discovered, the globular uterine tumor could be felt at the superior strait, the sensation imparted to the finger being precisely like that noticed on making a vaginal examination at the beginning of labor in a normal case before the finger can touch the os. When the index finger of the right hand was in the vagina, the tip resting in the slightly open os, and the second finger of the same hand at the same time in the right vagina, the right os could be found, appearing as a patulous slit on the side of the



round uterine tumor. At this time I invited another physician to see and examine the case.

As before stated, the sound at this time could be passed into the right os, and to a distance of six inches; the finger, passed into the left os as far as possible while the sound was in position, discovered the instrument to be in a separate canal.

Labor progressed fairly and in a normal manner, the only peculiarity observed being that, when the os was opened sufficiently for the head to pass, the margin attached to the vaginal septum was lower than its other portions, having the effect of causing the axis of the uterine outlet to deviate to the left of the middle line of the pelvis. At the same time the vaginal septum was drawn upward and made tense. Some delay of the head occurring at the outlet of the pelvis, delivery was completed with forceps, without accident. The child, a male, was alive, perfectly developed, and weighed eight and three quarter pounds. Before the placenta was delivered the right vagina was found, after some trouble; the septum seemed intact. After still more difficulty the right os was found, and a sound passed into it five inches; while the sound was in position the right hand was passed into the left uterine cavity, and the position of the instrument made out by the fingers through the uterine wall, it being in a separate cavity. On the right side of the partially contracted uterus, near its middle, was a hard tumor about three inches long, and two inches thick at its upper part, half pyriform in shape. This tumor could be felt with the greatest ease and distinctness through the thin and relaxed abdominal walls. It was a part of the uterus, as was easily determined by the fingers of one hand in the uterus and those of the other on the abdomen. It was also certain that the sound in the right cervical canal passed into the tumor. Through the abdominal wall the tumor imparted to the fingers precisely the same sensations as a subserous fibroid tumor in the same location, and might very easily have been mistaken for one had not the conjoined examination by sound and hand been made. It was undoubtedly the undeveloped right half of the uterus.

After these examinations were made the placenta was removed, and with the exception of some malarial disturbance the patient made a good recovery.

Seven weeks after delivery I made a vaginal examination and found that nearly all the vaginal septum had disappeared. It probably sloughed away after delivery. The right and left os were still distinct and almost alike. A sound was not used.

This case raises some interesting physiological questions. How could one half of such a uterus remain almost quiescent while the wonderful changes attending pregnancy went on in the other? How was the right cervix elongated five or six inches? Was it by the stretching of the cervix simply, or by actual growth? If the former, is a large part of the great bulk of the uterus at the end of pregnancy made of the changed cervix, and is it true that the cervix is, in a sense, absorbed into the body of the uterus, contrary to the teaching of the majority of modern observers? If the latter, by what physiological law did such great change take place in the cervix while the body of the uterus underwent almost no development?

RICHMOND, IND.

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## REMOVAL OF THE FORCEPS BEFORE DELIVERY OF THE HEAD.

BY THEOPHILUS PARVIN, M.D.

In Dr. Lusk's work on Midwifery, 1882, the following passage is found: Although not generally recommended, it is always my custom to remove the forceps as soon as the chin can be reached by the index finger introduced into the rectum. He further adds, the extrusion of the head, if it does not occur spontaneously, can then be easily effected, and the blades of the forceps, though of no great thickness, still add something to the distention of the vulva.

Dr. Landis, in his little volume, *How to use the Forceps*, published in 1880, remarks: "There are some who recommend that the forceps should be removed when the perineum has become greatly distended, for fear of laceration." He does not, however, approve the practice if the operator be intelligent and expert in the use of the forceps.

The practice of removing the forceps before the delivery of the head is more than sixty years old; it almost certainly originated with Madame Lachapelle. Baudelocque had taught that the instrument was not to be removed until the parietal protuberances had escaped the vulval orifice, and the distinguished *accoucheuse* just named, criticising this method, observes: "Did he believe that one hand could hold the perineum while the other used the instrument? In following his direction rupture of this part is inevitable, for the forceps increases the volume of the head, causes wider opening of the vulva, hastens the escape of the head, makes the distention greater and more sudden. To say that one hand suffices to make the extraction, is that not saying a slight effort would deliver the head? Very well, this slight effort I trust to the mother. When the head is once out of the bony parts, it does not go back; I gently remove the branches of the forceps and disarticulate them. I withdraw them by a gradual inclination, for often a somewhat sudden removal causes expulsion of the head. The forceps removed, the head dilates the parts very soon; the distention is more gradual, and I can give all my attention, direct all my forces, to preventing rupture of the perineum. If necessary I have the patient to bear down, but the head at the vulva by the tenesmus it excites causes her to do this."

American obstetric writers generally have failed to indorse this practice. I believe it is not mentioned by Dewees, Meigs, Miller, or Bedford. Warrington, in his *Obstetric Catechism*, gave the following questions and answers relating to the matter:

Should you be careful to support the perineum in delivery by the forceps? This should be regarded as an important object of attention.

Is it proper for you to remove the forceps as soon as the head escapes through the inferior strait? This is a good general rule.

Dr. Byford, in his well-known work, *Theory and Practice of Obstetrics*, remarks: "Sometimes, when the obstacle to expulsion consists in narrowness of the inferior strait, as soon as this obstacle is overcome and the head is advancing under good, strong pains, we remove the instrument before it emerges from the vulva."

Neither of the quotations just given makes Madame Lachapelle's practice an absolute rule.

And now let us turn to the great American master of obstetrics, the late Hugh L. Hodge, and see how strongly he condemns the practice, though he erroneously attributed it to Velpeau, who in fact only gave it partial approval. Referring to injuries of the perineum resulting from the forceps, Dr. Hodge observes: "To avoid these dangers, it has been strongly recommended by Velpeau, after the parietal protuberances have passed the rami of the ischia and pubis, if the bearing-down efforts continue, to remove the forceps from the head while it is still in the vagina. It is possible that such a movement may be occasionally necessary, but certainly this practice can seldom be proper, for, as already observed, the liability to injury of the perineum is not enhanced by the presence of the blades; their removal also deprives the practitioner of power to render any further assistance, and may even necessitate a re-application; and, moreover, this removal, under the circumstances of a rigid perineum, is not a safe operation for the tissues of the child, for it should be remembered that, under the degree of pressure to which the head is necessarily subjected by the forceps, the skin of the scalp and face of the child project into the fenestræ almost like a button. Hence, even if great care be employed and a slight rotatory motion be given, there might be great danger of inflicting injury upon these tissues while removing the blade. The best rule, therefore, is, that when the forceps are applied to allow it to remain until the head

be fairly delivered, when its removal, of course, is very easily effected."

Pinard, in his elaborate article upon the forceps (*Dictionnaire Encyclopediques des Sciences Medicales*), takes issue with the teaching of Lachapelle, saying "the course followed and recommended by her, seducing in appearance, in reality offers more inconveniences than advantages; not because, as has been objected, the operation appears to the family incomplete if not a failure, but because in some cases, uterine contraction and expulsive effort failing, a re-application of the instrument is necessary, and especially because a contraction occurring while the operator is occupied disarticulating and removing the blades may cause the sudden escape of the head and thus produce the rent we wish to avoid. Finally, to conclude, one ought not to disarticulate the instrument until the head has escaped the maternal parts, except it has been seized in an irregular mode."

It is remarkable that while some remove, others advise the use of the forceps for saving the perineum from injury; both Barnes and Kleinwächter refer to preventing by the forceps perineal tears.

In Spiegelberg's directions for using the forceps (*Lehrbuch der Geburtshülfe*), the statement is plainly made that removal of the instrument for the protection of the perineum is not advisable: "If haste is needed it can not be done, and if there be sufficient time the perineum can be protected in the manner previously given. On the other hand, it is very unpleasant to the young obstetrician to leave the operation seemingly incomplete, and especially so if, after removing the instrument, the head is not soon born."

That the forceps improperly used may cause perineal tears is not doubtful; the impropriety may be in the too rapid delivery or in the wrong direction given the handles, letting the ends of the blades depart from the fetal head so that they plow the posterior wall of the vagina, and then unnecessarily stretch the vulval opening; the blades ought to be so closely applied to the

head that the latter is a protection of the vagina and of the vulval orifice from direct injury.

But what power is substituted for that of the forceps by those who advocate the removal of the instrument before the head is delivered? According to Lachapelle, the voluntary efforts of the patient. But these may fail in strength, or may be quite absent.

According to others, the use of the fingers in the rectum. This practice originated with Smellie, though he did not suggest it as a means of protecting the perineum from injury. Objections have been made to it. Thus it has been justly spoken of as repulsive both to the practitioner and to the patient; there is danger of injury to the rectum by the fingers, and Matthews Duncan refers to a case where he believes a recto-vaginal fistula was thus caused. My own little experience in the method makes me believe that the fingers in the rectum are very likely to increase the voluntary expulsive efforts, efforts which, as they may cause the too early or too rapid expulsion of the head, we desire to moderate or suspend.

The forceps furnishes the best means to delay the delivery of the head until the perineum is sufficiently dilated, and to direct the head in the axis of the vulval opening when delivery is made.

If the Lachapelle practice prevails, what will become of the different sorts of vest-pocket forceps which American ingenuity has given us within the last few years? True, an American obstetrician, Dr. Reamy, at the Chicago meeting of the American Medical Association, holding one of these beautiful little instruments in his hand, said it was a mere toy, very much as Spiegleberg has spoken of Mattei's *leniceps*—*leniter*, instead of *fortiter capiens*—as a piece of play-work; nevertheless, if one of these instruments can not be used when the head is at the vulval orifice, what earthly use can be found for it? Its only opportunity is rudely, rashly taken away. Besides, if the use of these small instruments is only continued, a few years may see their number greatly multiplied, making obstetric fame and add-

ing to the profits of instrument-makers: this American industry ought to be protected instead of crushed.

But, returning from this sad digression, the changes in the diameters of the fetal head made by the forceps are yet to be fully studied, and that study bears some relation to the question being discussed. The most recent investigation is probably that of Budin. In his monograph, *De la Tete du Fœtus au point de vue de l'Obstetrique*, he observes that his experiments are too few to give positive conclusions; nevertheless that they prove, as those of Petrequin, Delore, and Joulin, that if the head is compressed in any direction its opposite diameters increase, and they especially give prominence to the modifications of the sub-occipital diameter.

In a forceps delivery, supposing the head to be seized, as it ought always to be if possible, by its biparietal diameter, while that diameter is lessened through the compression of the instrument the sub-occipital diameters are increased; practically, then, the forceps does not so lessen the size of the fetal head as thus in any wise to contribute to the safety of the perineum, and the argument for not removing the instrument until the head is born rests upon other grounds, which have already been given. Much remains to be determined both by scientific and clinical investigation. Nevertheless, the weight of obstetric authority is, I believe, against the adoption of the practice of Lachapelle; and so too, I also believe, is the practice of the majority of those who use the forceps.

INDIANAPOLIS, IND.

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## FOREIGN CORRESPONDENCE.

*My Dear Yandell:*

LONDON, Jan. 15, 1883.

The great event of this month has been the First "Bradshawe" lecture at the College of Surgeons, when Sir James Paget as usual charmed his vast audience with his eloquence, albeit the matter of the lecture was somewhat disappointing.



He took for his subject "Some rare and new Diseases," and under this head dealt with the peculiar joint disease discovered by Charcot, in association with locomotor ataxy, and also with the various kinds of gouty phlebitis which seem of late to have become common. This disease of the veins he decidedly thinks runs in families, and he mentions instances in which the males of a family have suffered from crural phlebitis and the females from phlegmasia dolens. In conclusion he called attention to the admirable collection of pathological specimens that had been gathered together in the College of Surgeons' Museum, and urged the importance of contributing specimens to it in order that it might become the center for the study of pathology. The entire lecture has been reported in several of the daily papers, and among the audience were a large number of distinguished non-medical visitors.

Mr. Alder Smith contributes to the journal of the association the report of a very extensive outbreak of ringworm of the head in a school, eighty-five out of ninety-two children being affected. The infected children were examined and all the diseased patches marked by cutting the hair from and half an inch round them; then all small and recent places were blistered with glacial acetic acid, containing four grains to the ounce of corrosive sublimate. The large patches which had existed some time were not blistered. The heads were then well washed, and the ointment ordered to be rubbed in, morning and evening, while the head was washed twice a week.

In three months twenty-six boys and twenty-three girls were cured. Oleate of mercury was then used for some of the chronic cases, and that not answering in all, the remainder were treated with blistering by croton oil, which caused the few remaining hair stumps to loosen, and the cure was completed.

Dr. Sanctuary of Hayde, Cornwall, records three very successful cases of sponge-grafting. In the first case, a boy had tied a piece of cotton three or four times around his penis, and the urethra had been laid open by ulceration. The other two cases were injuries to fingers, with extensive destruction of skin. The

sponges used were the finest grained Turkey. They were boiled in a weak solution of hydrochloric acid for some hours, and then steeped for half a day in a strongly alkaline solution of creasote; before application they were rinsed in hot water and cut into thin slices. The wounds were syringed with the same antiseptic solution, in which also the lint and gutta-percha were dipped. A single layer of each material was applied in the following order, sponge, gutta-percha, lint, and the whole was covered with a broad strip of India-rubber plaster, applied so as to secure firm pressure.

Dr. James Ferguson, of Glasgow, gives his experience of sponge-grafting, which is not so favorable. He finds, rather, the application of sponge to an unhealthy skin wound starts a healthy healing action, and that it is then better to remove the sponge, which causes some pain and bleeding, and that the wound will afterward heal quickly with any simple dressing.

Dr. Percy Boulton, of the Samaritan Hospital, describes the operation of tracheloraphy as practiced by him. He pares each side of the rent for a quarter of an inch, removing any cicatricial tissue, especially at the angle or fork of the fissure, and stitches these flaps together with silver wire. In order to do this, when the uterine ligaments are lax, the cervix should be drawn down outside the vulva. Chloroform is not given, and there is little pain, the uterine tissue bleeds freely, but the bleeding ceases when the flaps are brought together. The stitches must go deeply through the uterine flap, and the needle threaded afterward, drawn back, and the wire twisted with a twister. The operation is more easily performed through the short Ferguson speculum than the duck-bill. The local after-treatment consists in keeping the vagina clean by syringing daily, and the sutures are removed on the ninth day.

From St. Mary's Hospital Mr. Pepper reports a case in which he has successfully operated for vesico-vaginal fistula, after the patient had undergone twenty-two previous operations for same complaint at the hands of other surgeons. Immediately after the operation, a sigmoid catheter (to the end of which an India-

rubber tube was attached to conduct the urine into a vessel containing carbolic water) was placed in the bladder. Opium was given freely and a liquid diet ordered, thus guarding against the contraction of the rectum, a frequent source of failure.

From the Booth Hospital, Lancashire, Dr. Walker reports a most curious case of retention of urine, followed by spontaneous rupture of the bladder, and death. Patient was a most temperate man, had not had venereal disease or sustained any injury. He awoke suddenly in the night, wanting to pass urine, and complaining of violent pain over the privates. A catheter was passed, but only blood was drawn off. He died three days after of peritonitis, and at the necropsy a rupture was found two inches in length in the anterior wall of the bladder, commencing an inch from the neck and extending to two inches from its summit. There was no external evidence of injury to the abdomen.

Dr. Andrew Clark is to be president of the Clinical Society for the ensuing year, Dr. Symes Thompson president of the Harveian, and Dr. Gervis president of the Obstetrical Society.

Dr. Sturges, of the Westminster Hospital, makes an important communication to the *British Medical Journal* of the 23d ultimo, on some special characters of the present epidemic of typhoid fever in London. These points are, the high rate of mortality, the liability to relapse, the prolonged duration of the fever and of the convalescence, the proportion of patients whose recovery was delayed or prevented by intercurrent inflammations, and, most of, all, the insidious and misleading nature of the early symptoms. He enumerates twenty-one consecutive cases of typhoid admitted into hospital during the past three months; all the patients were young and healthy, and four were children. In the twenty-one cases there were five deaths; six examples of relapse, two being fatal; five not relapsing, had very slow recovery, three of them being still in hospital, barely convalescent after many weeks' illness. Only six out of the twenty-one, or, excluding two children, in view of the special characters of typhoid in early life, only four adults out of nineteen persons

made a good and proper recovery, in the sense of being apyrexial and on the way to convalescence toward the end of the fourth week. In one of the two fatal relapses, the relapse occurred as late as the fourteenth day, when the patient was up and about the ward. In another case the patient became unconscious, evacuations were passed in the bed, and she appeared to be dying. Recovering from this attack, she had two distinct repetitions of the fever, each with fresh spots and renewed diarrhea. Happily this severe epidemic, which points to some terrible sanitary defect, appears to be abating. I regret much that space does not admit of giving a more detailed synopsis of Dr. Sturges's extremely interesting paper.

Mr. W. E. Spencer gives an account of a case of cystocele, in which premature labor had to be induced. During convalescence the prolapse returned, and operative measures were resorted to. The patient was etherized and placed in the lithotomy position. The bladder was then distended with water, which brought the prolapsed part well within view and reach. A duck-bill speculum retracted the perineum. Then, sitting in front of the patient, Mr. Spencer dissected an ellipsoidal piece of mucous membrane two inches long and one inch broad from the anterior vaginal wall. One small vessel was tied. The raw edges were brought together with seven sutures of Chinese silk. The catheter was passed twice a day until the fifth day, when the patient micturated in the knee-elbow position. Vomiting was rather troublesome for the first twenty-four hours. The operation succeeded perfectly, and the patient has since been free from all discomfort.

Dr. Macleod, of the East Riding of Yorkshire Lunatic Asylum, calls attention to a novel method of committing suicide. The patient refused obstinately to take food, and required feeding with the stomach-pump. On opening his mouth with a Newton's gag one evening, he was found to have pushed well back into his pharynx a carefully-made cone of flannel. He was interrupted while pushing it down, but there is no doubt if he had pushed it an inch further he would have occluded the glottis.

Mr. Evans, of Swansea, records a case in which he amputated the forearm of a woman eighty-two years of age, who was suffering from an enormous cancerous tumor of the hand. The wound healed partly by first intention, and in thirteen days the remainder healed by granulation. She recovered without a bad symptom.

Mr. Dalby, of St. George's Hospital, and Dr. Carmichael, of Edinburgh, call attention to the danger of punishing children by striking them on the head or boxing the ears. If an injury follows a blow on the ear, it may be of three kinds: (1) The hearing may be immediately damaged without the membrane being ruptured, and without any inflammation being set up within the tympanum; (2) the tympanic membrane may be at once ruptured, and the appearance is usually that of a long vertical slit on one side of the handle of the malleus; (3) without the membrane being broken, acute inflammation may be excited in the tympanic cavity. Sea-water, according to Mr. Dalby, has a peculiar irritating effect upon the lining membrane of the tympanum, and especially when the perforation is of small size so that the fluid which has once entered can not freely escape.

Mr. Sell, of the Surrey County Hospital, gives the notes of a case in which a lacerated wound of the back of the head was followed by tetanus. During the first ten days the patient, who was treated with calabar bean, was well under its influence, as judged by the contracted pupils and cardiac oppression. Later the drug lost its power, and toward the end of the case a remarkable toleration both of calabar bean and chloral hydrate was established.

In a case of tetanus after laceration and gangrene of the ear, the notes of which are sent from the Portsmouth Hospital by Dr. Lloyd Owen, the patient was treated successfully with bromide of potassium and chloral hydrate. In both these cases morphia was pretty freely administered hypodermically, and without bad results, although opium has been said by many authorities to increase the congestion of the spinal cord.

After a most severe illness Mr. Fawcett, the Postmaster-General, has now fairly entered on convalescence. He was first

attacked by diphtheria, and subsequently well-marked typhoid symptoms showed themselves and persisted with great severity. When making favorable progress he had hemorrhage from the mouth, which recurred several times and caused painful difficulty in breathing. Articular rheumatism next manifested itself, but did not persist, and he is now believed to be quite out of danger. He still has a frequent and irritable pulse, and troublesome sleeplessness.

Several further cases of prescribing by druggists have lately engaged the attention of coroners' juries, and it must be acknowledged that if on the one hand it is considered desirable to restrict the practice of the employment of unqualified assistants by medical men, it will certainly be right to protect the public and the profession against the dangerous practice of prescribing by chemists. This subject ought to be dealt with at once by the General Medical Council.

A death took place recently at the Liverpool Eye and Ear Infirmary, during the administration of dichloride of ethidene. The heart had been previously examined, and was believed to be healthy. The dichloride of ethidene was given on a flannel inhaler, and the patient came under its influence quickly. Suddenly the pulse became feeble and then stopped. The patient's head was lowered, his tongue drawn well forward and artificial respiration commenced without delay, while nitrite of amyl was applied to his nostrils, but though the respiration was carried on for half an hour the patient did not rally. There is a record of this anesthetic having been administered nearly two hundred times. The absence of struggling as patients come under its influence, its pleasant smell, and the very little sickness following its use, caused ethidene to be regarded as a specially suitable anesthetic for operations on the eye.

An outbreak of typhoid fever at Evesham has been traced to lemonade supplied to a large number of persons assembled to witness a regatta. The water used for this lemonade was drawn from a well found to be seriously contaminated with organic matter.

## Reviews.

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**Microscopical Morphology of the Animal Body in Health and Disease.** By C. HEITZMANN, M.D., late Lecturer on Morbid Anatomy at the University of Vienna, Austria. With three hundred and eighty original engravings. New York: J. H. Vail & Co. 1883. 8vo, pp. xix and 849.

It is more than forty years since Schwann, representing the scientific evolution of his day in this behalf, proclaimed the cell-doctrine touching vegetation. A few years later Schleiden announced a modification and an amplification of Schwann's views. About thirty years ago biologists began to see, as through a glass darkly, that cells had to do with animal life as well as vegetable development, and in 1857 Virchow published the first connected exposition of these ideas under the title of Cellular Pathology. So clear, so satisfactory, apparently so true and complete were these teachings of Virchow that the great body of biologists since that day have been occupied with an enlargement of the doctrine and its adaptation to the explanation of the phenomena of life, normal and abnormal.

The cell was defined to be a homogeneous bit of living matter, and was held to be the unit of vitality. Huxley has made the world outside the profession of medicine luminous with the knowledge of life as manifested through protoplasm; the central idea in all these years being that the cell was a lump of undifferentiated protoplasm, and was a perfect animal within itself, capable of absorbing nutriment, of development, and of reproducing its kind. A single cell was the simplest form of animal life, but the most complicated animal structure was nothing more than an aggregation of cells, with a division of labor and function and a vast extension of form in certain directions.



While the foregoing outline is true as to the faith of the great body of biologists, there was a small, intelligent, and active minority of observers who had long been delving into the constitution of the cell itself, and had seen things therein that they held to be incompatible with the claim that the protoplasm of the cell was without structure and homogeneous. Beale, some years ago, imperfectly outlined this idea in the names he gave to the cell-contents, calling them "germinal matter" and "formed material." In 1873 Dr. Heitzmann, the author of the work under review, published in Vienna, where he then lived, "The Arrangement of the Living Matter in Protoplasm," and this essay constitutes the opening article in the third section of his book, and to it he has now appended a statement covering his observations in the nine years that have since elapsed, all of which, he affirms, have afforded additional evidence of the correctness of his conclusions at that time published. Dr. Heitzmann does not claim to have been the first to observe structure in the protoplasmic body; on the contrary, he announces that "the reticulum in 'protoplasm' was seen and depicted by Nasmyth" in 1839, and by others at sundry times since.

The doctrine of the book touching cells is succinctly this: The author, following Elsberg, calls the cell a "plastid." This plastid is composed of granules of living matter connected with each other by filaments of the same matter, constituting a reticulum, the meshes of which are filled with a fluid substance that has resulted from the living matter, and is now the medium of support of this reticulum and the bearer of its pabulum, but is not itself living matter. These granules are apparently structureless under the best powers of the microscope, and, as they manifest independent motion, must for the present be regarded as the primal element of vital activity, the real units of organic life.

An amœba has long been the representative single-cell animal, and is still regarded as the primitive animal organization, and under the cell-doctrine the amœba was a distinct animal,

the lowest and simplest. All higher animals were a number, small or large, of amœbæ differentiated into tissues and structures, and in functions as well; while under the bioplasson doctrine—as the new doctrine is entitled—the amœba, though still a simple animal, is nevertheless an organized being, having the granules of living matter as its structural elements; and the higher animals, instead of being such a community of countless amœbæ, are in fact nothing more than an immensely-expanded and highly-differentiated amœba. Under this teaching, therefore, every distinct animal existence is one cell (plastid) whether this animal be an amœba, an elephant, or a man. That the author's comprehensive statement of this conclusion may be seen in this connection, a quotation is made from page 36:

The analysis of a single protoplasmic lump is of the greatest importance, inasmuch as such a lump is the simplest animal organism, upon the plan of which are built up all, even the most complicated, organisms. It will be demonstrated further on that the human body is constructed on the plan of an amœba, and the comparison will be carried out in all details. Man is a complex amœba, with permanent protrusions, the extremities, with a wonderfully complicated division of the labor of groups of the living matter. Man, *in toto*, is an individual, as is the amœba, and in both isolated lumps of living matter float about—in the one case in vacuoles, in the other in blood- and lymph-vessels.

To maintain this position Dr. Heitzmann does not rely wholly upon himself, but introduces, with more or less fullness, the detailed observations of twenty other modern American investigators in this field of scientific research, inclusive of the paper upon "Bioplasson," by Dr. Elsberg, of New York, submitted to the American Medical Association in 1875, and one on "The Origin of Blood Corpuscles," by Dr. Johnstone, of Danville, Ky., published in the Archives of Medicine in 1881.

The author begins his book by presenting his methods of preparing and mounting specimens and working with the microscope; and then, with the assistance of his twenty collaborators, follows this with a description of the "General Properties

of Living Matter," "The Arrangement of Living Matter in 'Protoplasm,'" "The Phases of Development of Living Matter," "The Structure and Origin of Colored Blood Corpuscles" and the "Tissues in General." These sections of the book occupy one hundred and forty-two pages, and are succeeded by a detailed description of the origin, development, and decline of the several tissues that constitute the human frame, beginning, quite appropriately, with the connective tissue, and ending with the degeneration of the female genital tract. Not only is the normal structure, the issue of physiological activity, set forth with particularity, but abnormal structure, the result of pathological activity, has special attention, the two conditions being treated of usually directly in connection as the best means of pointing out perspicuously the difference in progress and termination of the two vital processes.

This brief exposition of the contents of Dr. Heitzmann's work will suffice to indicate that in effect it seeks to demonstrate that the popular scientific view of the structure and mission of the cell are erroneous; that instead of the cell being the beginning, the unit of life, it is a highly-organized being, and that its nature and development being fully comprehended necessarily does away with the cell-doctrine both in physiology and pathology, and there is in its stead a new theory offered, to which is given the title of the Bioplasson Doctrine. No outline of the evidence upon which this theory rests can be given in the space and time allotted to this review, but the reader will find in the volume itself a clear and comprehensive presentation of the entire subject, and in such wise that he will have no difficulty in understanding the author's position, whether he accepts the author's conclusions or not.

There are two classes of biologists, at least, who will not embrace the new doctrine with alacrity and joy: one is the veteran, staid workers who have so long done service in the field where the cell-doctrine was dominant and deemed all-sufficient, that they are intolerant of innovations in this domain, and will recognize nothing in the new views but the wild imaginings

of ambitious unripeness founded upon the fancied things seen through the high powers of the microscope by insufficiently trained observers more anxious to detect and report novelties than to demonstrate truth; and the other class is composed of fresh, active laborers in the same department who have not met with equal success, or have allowed their judgments to be warped by prejudice born of rivalry or some personal pique.

The first class have a fair foundation for their incredulity in a certain flavor of egotism that runs through the volume, the author apparently assuming that he is absolutely familiar with all that has been done by others; that he and his associates, who have progressed far beyond the old limits of biology, have approximated perfection and are the only parties entitled to consideration. The book affords many sentences which illustrate the author's vain self-sufficiency, and a quotation from its preface will suffice to exhibit his arrogance toward the fathers in microscopic histology, viz:

In view of these facts I can wait patiently the approval of scientists abroad. A doctrine which is accepted by good observers in America can not be lost, but will develop independently of European microscopists, who to a great extent are prejudiced by the teachings of the older masters.

Again have facts made it evident that the United States of America are ahead wherever new ideas of practical importance are to be acknowledged. I have received in New York much encouragement from my students and co-workers. I have also been magnanimously supported by a friend, who is not a medical man, but a prince in character and wealth, and who surpasses most European princes in that he will not allow me to inscribe his name on the dedicatory page.

The second class of recalcitrants can also find many salient points in the volume upon which to hang their objections, and those of them who are at all cynical with a mercenary leaning can quote several passages where the author refers to the completeness of his New York laboratory, the number of his pupils, the value of his instruction, and the distinction to which his co-

workers have attained that may, without violence, be construed to be bids for business.

Still another feature of his writing, tantamount to a claim of infallibility by the author, has a tendency to make a sensitive critic feel as if the nap of his good nature was being stroked the wrong way. He asserts that pus corpuscles contain internal evidence of the good or bad constitutional condition of the person in whom they originate. "This fact has been made use of in hundreds of cases when pus corpuscles, mainly in urine, were brought by different physicians to my laboratory for examination, for telling whether the pus belongs to a good or a bad constitution, of course without any knowledge of the patients themselves. I was right in every instance; not one mistake has occurred." (Page 59.) If the doctor had only made one mistake in these hundreds of cases it would have permitted of the belief that the inspector was mortal and akin to common, frail humanity.

And again, our author has so successfully cultivated the knowledge of the appearance of the blood disks that he holds that marriages should be arranged, not in heaven, as the poets have it, but in the laboratory, with the assistance of the microscope peering into the blood. To illustrate: A young physician, last year, appealed to Dr. H. to know whether he should marry his cousin. The doctor examined his blood, and told him he was a nervous man, passing sleepless nights; and because of the relation of consanguinity his fair cousin was probably like him in constitutional tendencies, and therefore "marriage was not advisable for fear the offspring might degenerate. So great was his faith in my assertions that he gave up the idea of marrying his cousin, offering her the last chance, viz. the examination of her blood. This beautiful girl came to my laboratory, and, very much to my surprise, I found upon examination of her blood a first-class constitution. The next day I told the gentleman, 'You had better marry her.'" (Page 61.)

Now if Dr. H. could, through some vacuole in the bioplasmon doctrine, so instruct his young and confiding medical friend

in the mysterious process of generation that the offspring of this union shall develop blood after the pattern of the mother rather than after that of the father, it would be a consummation worthy of the purely scientific morphology on which the marriage was arranged.

Waiving the question of their literal accuracy, these are blemishes of both matter and manner which one may fairly enough treat with a bantering levity; but they only mar the book in minor parts, do not invalidate its general scientific accuracy, nor touch the importance of the great problems it unfolds and solves through the persevering industry of the author corroborated by the labors of independent collaborators of unimpeachable skill in discerning and of acknowledged purity of taste and style in communicating. The author's scientific teachings are entitled to consideration on their merits, and the text is so explicit and full, and the illustrations—all drawn by himself—so fresh and satisfying, that unfriendly critics must do something more than sneer and indulge in crotchety raillery before they can convince intelligent readers that the prophet of the bioplasm theory has said nothing new and true, and that the volume before us is the romance of an enthusiast who creates and colors what he sees and draws by the aid of a Tolles one-twelfth-inch immersion lens peering into plastids magnified twelve hundred diameters and tinted with chromic acid, nitrate of silver, and chloride of gold.

The volume is admirably printed, and the three hundred and eighty illustrations are perhaps the best of their kind before the public. The absence of an index is a serious inconvenience to busy people seeking to consult the work on special subjects.

J. F. H.

**Labor among Primitive Peoples:** showing the development of the Obstetric Science of to-day from the natural and instinctive customs of all races, civilized and savage, past and present. By GEO. J. ENGLEMAN, A.M., M.D., Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College, Master in Obstetrics of the University of Vienna; Fellow of the American Gynecological Society, of the London Obstetric Society, etc., etc. Fifty-six illustrations. St. Louis: J. H. Chambers & Co. 1882. 8vo, pp. 203.

This rehearsal of curious things, ancient and modern, pertaining to child-bearing is a story of five chapters, all of which have been heretofore published either in the transactions of some society or in medical journals, each as an independent communication, and are republished here in book-form without an effort to reconstruct them into a smooth-running monograph on the subject to which they relate, which, the author informs us, is ethnological rather than purely medical. The author forestalls any disposition one might have to an unfavorable consideration of the order of his matter by declaring in his preface that "in the arrangement of this volume circumstances necessitated the faulty order, which the reader *can not overlook*, yet will, I trust, *generously pardon*."

Chapter I treats of posture in labor, and is divided into two parts; the first concerning position among peoples governed by instinct, not by modern obstetric fashion, and the second discussing the position during labor of women in the enlightened nations of to-day. This chapter ends with five italicized conclusions declaring the author's convictions of the proper position of women in all stages of labor. Much of this concluding matter is good.

The other chapters relate to the management of the third stage of labor, savage and civilized; labor proper; massage and expression; and labor-scenes among the yellow, black, and red races.

Following the custom of our clerical brethren, the author makes use of the facts he has gathered and presented as a



lesson for our improvement in the management of our puerperal women, insisting, with much propriety, that the instinctive proceedings of uncultured humans in this behalf contain much that we may follow with benefit in the present day, even though culture and fashion have made a lady of our time quite another animal from the wild women who do all domestic labor among the savages of all times and places.

If an exception were to be taken to Dr. Englemann's teachings in these final lessons, it would be that he does not seem to regard the chasm between the savage and modern civilized women as wide as it really is, and yet suggests too much of the artificial and meddlesome in fashionable midwifery. J. F. H.

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**On Asthma: Its Pathology and Treatment.** By HENRY HYDE SALTER, M.D., F.R.S., Fellow of the Royal College of Physicians, Physician to Charing Cross Hospital, and Lecturer on the Principles and Practice of Medicine at the Charing Cross Hospital Medical School. First American from the last English edition. New York: William Wood & Co. 1882. 8vo, pp. 284.

The legend, "First American from the last English edition," on the title-page of this volume is a misstatement of facts liable to mislead an unsophisticated searcher after fresh thoughts in new books. Such a searcher examining this title would reasonably infer that the last English edition was recently out and quickly seized and reproduced by the New York publishers for early enlightenment of American readers, while in truth the searcher might be toying, as he searched, with a fairly-developed moustache, and yet have been born after the last English edition of Salter was published.

Dr. Salter's first edition was published in 1860, and an American reprint of it is within eyeshot at this writing bearing the imprint of Blanchard & Lea; so the claim that the book under notice is the first American edition is an error. Dr. Salter's second and last edition was not long in following the first, and

was and is a superb work, now become classical and worthy of a place in every good library for physicians' use.

The present issue is the September, 1882, number of Wood's Library of Standard Medical Authors, and the publishers have done well by their patrons in giving them this excellent treatise in the acceptable style of this series of their publications; and for the reason of the substantial merits of the work, and the value of it as a possession, there is no legitimate excuse seen at this distance for what has the appearance of an effort by the publishers to so arrange the preliminary pages that the hurried book-purchaser will buy under the impression that he is obtaining something freshly written.

J. F. H.

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**The Hospital Treatment of Diseases of the Heart and Lungs, as Exemplified in the Hospitals of New York City.** By CHARLES H. GOODWIN, M.D. New York: C. H. Goodwin, M.D. 1883. 1 vol. Pp. 195.

This modest little volume is without any pretension to originality excepting the design. The book is just what it claims to be, has been carefully prepared, and no doubt accurately represents the treatment of cardiac and pulmonary diseases in the nine hospitals of New York. The book contains "over three hundred and fifty formulæ." But when these are studied they are found to be just about what any well-informed physician would be likely to prescribe under like circumstances. The plans of treatment in the different diseases are those which the common text-books recommend. No new facts in therapeutics are recorded, nor are any new principles developed to explain already known facts. Without finding the least fault with the compiler of this book, who has made the most of his material, it must be said the material is not worthy of a book.

O.

## Clinic of the Month.

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SECONDARY PUERPERAL HEMORRHAGE.—At a late meeting of the New York Academy of Medicine Dr. Paul F. Mundé read a paper on this interesting subject, which we copy from the Medical Record:

The majority of obstetric authorities scarcely referred to the possibility that alarming uterine hemorrhage might occur as late as several weeks after confinement, and only the standard works of Barker, Winkel, Playfair, Spiegelberg, and Barnes devoted a fair amount of space to this accident. In September, 1880, at the annual meeting of the American Gynecological Society, Dr. Theophilus Parvin read an elaborate essay on this subject. The fact that so little had been written concerning it, and also the fact that the accident was comparatively rare and grave, were sufficient reasons for reporting the following case, which presented certain peculiarities not referred to by Dr. Parvin.

On August 2, 1882, he saw, in consultation with Dr. S. Kohn, a patient who was in great danger from uterine hemorrhage. She was twenty-five years of age, the mother of three children, and had always been healthy. She was taken in labor on July 16th, with her fourth child. Labor progressed slowly, and after it had lasted twenty-one hours, the head almost resting upon the perineum, and no advance being made, an attempt made to deliver with the forceps failed. The cranium was then opened and the forceps again used, but they refused to hold. The head was then delivered with the cephalotribe. The cause of the difficulty was hydrocephalus. Hemorrhage was quite profuse, but soon ceased. The placenta was adherent to the right side of the fundus and required complete separation by the hand, special care being taken not to leave any fragments behind. Two fluid drams of ergot were administered by the mouth and all hemorrhage ceased. On examination it was found that the anterior lip of cervix was quite badly torn. The patient appeared to be doing well for the next six days, although the temperature varied from 101° to 102° F., and the pulse averaged 120. The lochia were fetid from the

third day on. Uterine injections washed away numerous small shreds and coaguli until the lochia lost their offensive odor. On July 28th the lochia again became offensive, the discharge diminished in quantity, was serous, and contained a reddish-black fluid. On the sixteenth day after labor a profuse hemorrhage began, and when Dr. K—— saw the patient, four hours and a half afterward, she was almost exsanguinated. The bleeding was arrested for a moment by intra-uterine injections of hot water, but it soon recommenced. It was again checked by injections of hot water and tamponading the vagina. When Dr. Mundé saw the patient he found her with low head, perfectly pallid face, hands and feet cold and clammy, pulse 120, very weak, and consciousness unimpaired. The fundus of the uterus was on a level with the umbilicus, irregular in outline, the right horn extending several inches above the navel, and there was moderate tenderness. After preparing fresh carbolized tampons, procuring a few ounces of the pure tincture of iodine, and a fountain syringe filled with hot carbolized water, he rapidly removed the tampons, and at once passed his hand into the dilated vagina and through it into the distended uterine cavity, which he found filled with soft coagula, exceedingly offensive, dark colored, and largely mixed with shreds of decidua. The internal surface of the uterus was soft, pulpy, and the mucous membrane apparently very much thickened. Great caution was necessary, in order to avoid injuring, perhaps perforating, the pulpy wall of the organ. After emptying the uterine cavity, he introduced a long metallic tube, and washed it out with carbolized water from the fountain syringe, the water being as hot as the hand could bear. The patient did not complain of the heat. He then introduced a large cylindrical speculum through the tube of a long cervical syringe, and then injected half an ounce of pure tincture of iodine into the uterine cavity, using some force in order to insure the thorough distribution of the iodine. Cotton tampons joined with a cord were again applied, merely as a safeguard against further hemorrhage in case the iodine failed to check it, and he directed that they be removed in six hours. The injection of iodine gave no pain whatever, nor was it followed by shock. Six hypodermics of brandy were given, and ten drops of aromatic spirits of ammonia, five drops of spirits of camphor, and a teaspoonful of brandy were ordered in ice-water every half hour. A hypodermic syringe full of Squibb's fluid extract of ergot was injected into the subcutaneous cellular tissue of the abdomen, and an ice-bag was placed over the uterus. A bottle of hot water was placed at the feet. Directions were left to inject

the uterine cavity very gently with tepid carbolized water after removing the tampons, for the purpose of preventing the decomposition of the coagula produced by the iodine.

On visiting her twenty-four hours later he learned that no further hemorrhage had occurred, and that the uterus had been washed out several times. There was hectic flush and a peculiar sweetish odor about the patient, which sustained the conviction already expressed that the patient was suffering from septic endometritis. Tepid injections of a one-sixth-per-cent solution of permanganate of potash were made into the uterus every three hours, more or less, according to the offensiveness of the discharge. Ten grains of salicylate of soda were to be administered every two hours, in case the temperature should rise above 102° F. and the stomach did not reject it. Stimulants as might be required. Nutritious enemata. Prognosis unfavorable. In the course of the subsequent treatment, intra-uterine injections of the sulphate of quinine (sulphate of quinine, one dram to the quart of water) were used at the direction of Dr. Kohn, and apparently with marked benefit. The offensive lochia continued several weeks after the hemorrhage. The patient recovered slowly, and at the end of five weeks convalescence was complete.

Dr. Mundé then reviewed several points of interest in the case reported.

1. The causes of secondary puerperal hemorrhage. Constitutional: hemophilia, mental emotion, functional disease of the liver, incautious use of stimulants, sudden assumption of the erect position. Local: irregular and inefficient contraction of the uterus, clots in the uterine cavity, portions of retained placenta or membranes, retroflexion of the uterus, laceration of the vagina or vulva, laceration or erosion of the cervix, inflammatory ulceration of the cervix, malignant disease of the cervix, pelvic cellulitis, inversion of the uterus, premature sexual intercourse, loaded rectum. To these he added distended urinary bladder. Besides these malarial poisoning was a well-recognized cause of secondary puerperal hemorrhage. General febrile disturbances were also causes of secondary metrorrhagia. Another cause, so far as he had been able to learn spoken of by Winckel only, was disease of the inner surface of the uterus, chiefly endometritis. Dr. Mundé believed that his case belonged to this class.

2. The date of hemorrhage after delivery. The time at which secondary hemorrhage is liable to occur varies greatly, according to the character of the labor, the care taken in the third stage, precautions employed during child-bed, and accidental circumstances.

Barker refers to instances as late as the fifth or sixth week after delivery, and Helfer speaks of one during the fourth week.

3. The significance of secondary hemorrhage depends partly on the amount of blood lost and escaping, and partly on the origin of the blood. Hemorrhage depending upon mere temporary atony of the uterus is less serious than if due to sloughing off of the placenta, uterine thrombi, or the bursting of a dilated vein. The occurrence of serious or fatal hemorrhage at a later date than the fourteenth day after delivery was certainly very rare. The evil consequences of protracted secondary hemorrhage were the debilitating effect upon the woman and subsequent uterine disease of some form or other.

4. The means employed to check hemorrhage. He recommends the method of injecting iodine through a cylindrical speculum, as a means of saving the vagina and vulva from inevitable contact with the fluid if the latter is simply injected into the uterus under the guidance of the finger. With reference to the application of the tampon after labor, it need scarcely be said that it should never be done unless the uterus was so contracted and constantly watched that no internal hemorrhage could take place. He applied the tampon temporarily as a possible safeguard against external hemorrhage until the patient had had time to rally a little, and with the positive understanding that the fundus uteri should be carefully watched until the tampon was removed. As a rule, it might be assumed that the same remedies and measures which are used to check primary uterine hemorrhage will be effectual in the second variety. For a protracted bloody lochial discharge, or a constant sanguineous oozing due to subinvolution, he had in a number of instances used successfully the pure tincture of iodine applied to the uterine cavity about twice a week on cotton-wrapped applicators.

Dr. Mundé concluded his paper by making reference to the means of preventing these hemorrhages, primary and secondary. The following rules were given for the management of the third stage of labor and the early puerperal state:

1. Always keep the hand on the fundus uteri from the moment the head appears at the vulva until the placenta is expelled.
2. Do not hasten the expulsion of the placenta too much.
3. Always watch the uterus with the hand, using gentle friction occasionally, for at least one hour.
4. Always give ergot by the mouth immediately after the birth of the child. If chloroform has been given, or if the labor has been

unusually tedious, give ergot hypodermically, injecting a syringe full of the fluid extract to the depth of one inch near the umbilicus.

5. If the uterus shows a reluctance to remain contracted, rub the fundus gently with a piece of ice, or insert a cone-shaped piece into the cavity.

6. Always make sure by palpation and percussion that the uterus contains no coaguli.

7. Apply the child to the breast early.

8. Apply an equably tight binder, and, if there be tendency to hemorrhage, a pad should be placed over the fundus to secure its steady compression.

9. If there be laceration of the cervix or vagina, future oozing may be checked by mild astringent injections, or, if need be, by applications through the speculum. Immediate suture for laceration of the cervix appeared to him to be rarely feasible.

10. Do not allow the lying-in woman to leave her bed before the tenth day.

11. See that the bladder is empty and is not interfering with uterine contraction.

12. See that the nozzle of the syringe is not introduced too far, and that too much force is not used in giving the customary cleansing injection.

Dr. W. M. Polk, on invitation, opened the discussion, and said that he had seen but one case of secondary puerperal hemorrhage, meaning thereby hemorrhage sufficiently profuse to produce marked exhaustion in the course of twenty-four hours, and in that instance it occurred fifteen days after confinement. He applied a tampon because the uterus was firmly contracted, not large; and besides, he watched the organ very closely. He had a misfortune with it, which he believed was worthy of being borne in mind. The tampon was wet with a solution of persulphate of iron in water, three parts of water and one of the liquid preparation of the iron. It remained in position about twelve hours, and after its removal he instructed the nurse to thoroughly syringe the vagina; but she neglected to do so, and the consequence was complete atresia of the vagina, which required a secondary operation for its relief.

Dr. Polk also referred to a second case, which occurred in the practice of one of his friends, in which the hemorrhage occurred on the fifth day after confinement, and followed an intra-uterine antiseptic injection given through an ordinary catheter. In that case hemorrhage was so profuse that death took place almost immediately.



He thought that the possibility of the occurrence of this accident should always be borne in mind in the usual habit of washing out the uterus with antiseptic solutions after confinement. Dr. Polk believed that the causes of this form of hemorrhage could be arranged under two heads: first, local; second, constitutional. His rule has been, when he had to deal even with milder degrees of septic inflammation of the endometrium, to be closely upon his guard against the occurrence of this accident. The tendency to improper contractions of the uterus in consequence of septic disease, and a failure to establish proper organization of the clot for the complete closure of the vessels, renders very trivial causes sufficient to produce hemorrhage. The conditions likely to interfere with the proper organization of the coaguli in the ends of the uterine sinuses are, unfortunately, very numerous. In the first place, all septic inflammations belonging to the uterus in the parturient state exert a marked influence in this direction. The other causes were chiefly constitutional, and were summed up under the head of cachectic states, such as malarial poisoning, or poisoning from any of the minerals, as mercury, lead, etc. He did not approve of the practice which formerly prevailed, of forcing the uterus back into the hollow of the sacrum by means of heavy compresses and bandages, for the reason that such mechanical pressure gave rise to congestion of the organ, and was liable, sooner or later, to be followed by hemorrhage. Dr. Polk also preferred hot water to cold. He had seen a good deal of prostration produced after prolonged use of cold, and he had not seen any ill effects follow the use of hot water. Water into which the hand could be placed and retained was not too hot for the uterus, and he thought this was a sufficient test for the temperature of the water. So far as immediate operations upon the cervix were concerned, he agreed with the author of the paper, that they were out of place. He thought the observations made by Dr. C. C. Lee had proved conclusively the correctness of this conclusion.

Dr. E. L. Partridge directed attention to some of the less severe cases than those which had been mentioned by Dr. Mundé and Dr. Polk. He thought that only one half of the question had been stated when it was said that secondary hemorrhage was due to retention of clots and portions of the secundines, etc., and that the real question was, What is the condition that allows this improper uterine contraction? He then proceeded to speak of the predisposing causes, both local and constitutional, which might give rise to secondary uterine hemorrhage. For example, a woman who suffered from such

symptoms as would naturally be attributed to disorders of the circulation, such as headaches due to anemia, attacks of syncope, etc., would be liable to the occurrence of hemorrhage after labor. With regard to local predisposing causes, he mentioned chronic uterine diseases of various kinds, chronic cellulitis, which led to an increase in the size of the organ due to the preponderance of fibrous structure which was liable to interfere with perfect contraction of the organ at the termination of labor. The only alarming case of secondary puerperal hemorrhage which he had seen occurred on the ninth day after labor. It occurred suddenly, and was found to be the result of an annular slough which involved the entire vaginal end of the cervix. The loss of blood was sufficiently profuse to seriously jeopardize the patient's life. The history of the labor was that of early rupture of the membranes. And with regard to early rupture of the membranes, he had found that the persistence of the hemorrhagic element in the lochial discharge was very likely to exist, and it might be sufficient afterward to produce what might be called hemorrhage. In such a case as that reported by Dr. Mundé he would not hesitate to use a tampon, but, generally speaking, he would not hasten to apply a tampon until he was convinced that all other methods for controlling the hemorrhage were futile, because he thought there was a liability to the absorption of septic material.

Dr. Partridge then made special reference to the importance of compressing the uterus for some time after the completion of labor, and for the purpose of preventing the occurrence of secondary hemorrhage.

Dr. H. T. Hanks concurred in nearly all the statements made by Dr. Mundé, and made reference to cases of undoubted malarial origin which had come under his observation. In one the hemorrhage occurred fourteen days after delivery. It was controlled by the use of a battery and injections of hot water. He agreed with Dr. Polk that hot water was the more easily obtained, and more agreeable to the patient, and more effectual than cold. It could be easily injected through Chamberlain's long glass tube, or a small gum-elastic catheter. He did not approve of the use of the tampon. He also thought it unnecessary to give a dram of ergot in all cases of labor. If there was any evidence of impending danger, certainly the ergot should be used, but if the patient was all right, why give something which produced uterine colic?

Dr. Mundé, in closing the discussion, said he did not concur with Dr. Polk with regard to the effect produced by the binder and pad. He thought their use was simply the application of the same principle

which was so frequently applied for the arrest of hemorrhage in any other part of the body. With regard to the use of heat or ice, he did not wish to be understood that he would use ice-water, but he would simply take a piece of ice and rub it over the fundus, or introduce a piece into the cavity of the uterus. It had been his experience that the patient complained more with regard to the use of hot water than the use of cold. Dr. Partridge's remarks were exceedingly proper with regard to the etiology of hemorrhage in certain cases, but it had not been his purpose to enter upon the subject of the etiology of uterine hemorrhages which were of a more chronic character. He wished to speak chiefly of the acute cases. The subject of protracted lochial oozing he thought had not been sufficiently elaborated. He believed that the condition was exceedingly common, and that a great deal could be done in the way of its prevention and cure. With regard to the use of the tampon, he did not wish to be understood as recommending its introduction after delivery of a full-grown child. It certainly was a risky practice, but in his case he preferred to take the risk rather than to allow the patient to lose another drop of blood. But it should be insisted upon that it be very carefully watched. He did not believe that it was always necessary to use ergot after delivery, but at the same time he thought the woman was a little more safe with than without it, and he did not believe that it did any harm.

Dr. Polk remarked that he did not mean to criticise the application of the binder and compress, but simply wished to speak of the custom of continuing it for a week or ten days after labor.

PROF. WEINLECHNER reports a case where injection of iodoform (one to ten of sulphuric ether) cured a case of sarcoma of the tonsil. Profs. Billroth and Albert had previously refused to perform an extirpation. Sixteen injections of two and a half to three drops of the above solution were given inside and fourteen outside. But before that Prof. Chiari had stated the nature of the tumor. On account of a hemorrhage the carotis corum. sinister was tied. Patient had dyspepsia, which disappeared after discontinuing the iodoform, and also bronchitis. The tumor and also the swelling of the glands were both entirely removed. (Translated for the AMERICAN PRACTITIONER from *Allgem. Wien. Med. Zeitg.*)

BROMIDE OF ETHYL THE MOST PERFECT ANESTHETIC FOR SHORT, PAINFUL SURGICAL OPERATIONS. — Prof. Julian J. Chisholm, M. D., of the University of Maryland, communicates the following to the Maryland Medical Journal:

On account of its activity, efficiency, and the evanescent nature of its narcotic effects the bromide of ethyl has become my favorite anesthetic for all surgical cases in which, by quick manipulation, I can perfect a painful operation in a short period.

Experience by daily administration has taught me this very valuable lesson, viz. that the bromide of ethyl is not an anesthetic which can be advantageously repeated or its inhalation be continued for any length of time. This is one of the serious mistakes which we made in our early experiments, and which induced me, through ignorance, to discard the new agent as unreliable.

*Its wonderful action is obtained during the first minute of its inhalation and what I have called its primary anesthesia.*

In cases in which from some interference with the rapidity of the manual of operative procedure this primary anesthesia wears off, and a second and even more numerous administrations have to be made to keep up the anesthetic state until the operation can be completed, while the narcosis can at all times be reproduced, nausea is very apt to follow. By this frequent repetition of the inhalation a mental depression is established, as from the continued use of chloroform or ether, which may last many hours.

Fortunately there are many surgical operations of a very painful nature which can be perfected within the short period of a primary ethyl narcosis. Abscesses can be lanced, cysts emptied, sinuses laid open, wounds probed, strictures incised, muscles divided, ingrowing nails removed, surfaces cauterized, examinations made necessitating painful manipulations, and even amputations may be performed.

The irritable eyes of children can be thoroughly examined, tumors removed from the lids, orbital sinuses explored, the lachrymal canals laid open, the nasal ducts probed, foreign bodies removed from the cornea, canthotomy practiced, crossed eyes straightened, the operation for artificial pupil perfected, ingrowing lashes destroyed by the cautery, needle-operations for soft or capsular cataracts effected, and even optico-ciliary neurotomy completed.

All such operations I perform now under a primary ethylization, if the patient exhibits any timidity or expresses a desire to be put to sleep. Cataract extractions, enucleations, and many lid-operations

require more time for their safe performance than ethyl narcosis permits. If every preparation be made in advance, instruments arranged in the order in which they are to be used, and placed within easy reach, and if the surgeon is able to manipulate with dexterity, it can be readily seen that a very large part of the painful procedures of surgical practice might be made altogether painless by taking advantage of the wonderful nature of ethyl narcosis.

In eye surgery I not only use ethyl daily, but if deprived of it would feel that I had lost one of my very best assistants.

What can be more satisfactory than the correction of that ugly deformity, squint, under the perfectly quieting influence of the bromide of ethyl, in less than one minute, to cover ethylization and the tenotomy? In fifty-two seconds I have ethylized the patient and completed the division of the faulty muscle, and the patient quite himself in two minutes more. This was my most expeditious operation. I have repeatedly completed the entire operation for the correction of squint, including the whole time necessary for the administration of the anesthetic, in less than sixty seconds.

*To use the bromide of ethyl efficiently, one must have confidence in himself and also in the safety of the agent which he is administering.*

For long operations, or such as I desire to complete slowly, I prefer to administer chloroform, an anesthetic with which I have had a long, extensive, and uninterruptedly satisfactory experience. *Of over twelve thousand patients upon whom I have operated under the narcotic effects of chloroform I have not lost one.* These patients cover organic disorders of heart, lungs, kidney, or visceral disease in persons of all ages, from the child only a few days old to my oldest chloroform administration, a very old man of ninety-six. Some were strong, while others were very feeble. I never refuse the comforts of an anesthetic to any person upon whom I have to operate.

Chloroform has always served me so faithfully that I have never had any good reason for transferring my allegiance to sulphuric ether. I now and then use ether, but only at long intervals. Should a patient express any positive objection to chloroform, and desire that ether be administered in his case, I always carry out his wishes. When the selection of the anesthetic is left to me, and it usually is, my preference is decidedly for chloroform. I use chloroform so freely that I buy it literally by the gallon or in seven-pound bottles, many of which I have emptied. Of sulphuric ether I still have a pound bottle, which has been in my possession already five years, with contents not yet consumed. I believe that sulphuric ether is as safe as chloroform,

but not more so. I know it to be more disagreeable in its odor and much more unpleasant in its inhalation. I believe that either chloroform or ether, when carefully given in accordance with well-known laws, which should always be observed in the inhalation of anesthetics, will, with few very rare exceptions, carry safety in its train. I also believe that if proper care be not taken trouble may come to both patient and surgeon regardless of the agent selected. Some physicians have much more anxiety while using anesthetics than others, not because they have a worse class of patients, but because they have never acquired the necessary confidence in the article they use, nor do they feel the necessity, under conviction, of always having and observing fixed rules for their guidance in the use of these powerful agents.

After an experience of thirty years of an active surgical practice I still hold chloroform to be the best of anesthetics for tedious operations, provided certain simple rules are adhered to in its administration. I can enumerate them in very few words:

1. I always, *without a single exception*, give a strong drink of whisky, from one to two ounces, to every adult to whom I intend to administer chloroform. This is done a few minutes before they get on the operating-table. Because I never omit this fundamental law, and in advance sustain the heart against the depressing effect of the anesthetic, in not one of my twelve thousand cases have I ever had to use in a single instance a hypodermic of whisky. It is already in the stomach should it be needed, and can do no harm if not required.

2. Always loose the neck- and chest-clothing, so as to have no impediment to respiration.

3. Only administer chloroform in the recumbent posture, with the body perfectly horizontal and head on a low pillow, this pillow to be removed as the anesthesia progresses.

4. Give chloroform on a thin towel folded in conical form with open apex, so that the vapor before inhalation will be freely diluted with atmospheric air. In holding this cone over the face of the patient at some little distance from the nose, place the fingers under the borders of the cone for the double purpose of allowing air to enter freely, and also to prevent the chloroform liquid on the towel from coming in contact with the skin of the patient's face, and thereby avoid its blistering effects.

5. Should loud snoring occur, force up the chin. This manipulation, by straightening the air-passages from the nose to the larynx, makes easy breathing. The forcible elevation of the chin is far better



in every respect than pulling out the tongue. It is easier of application, more quickly done, requires no instruments, and is much more efficient in removing the impediment to respiration.

By always following these five simple rules I have had so far both safety and comfort in the administration of chloroform.

Possibly one very strong reason why I have been so successful in the administration of chloroform is that, as a specialist in eye-surgery, the inhaler must be removed from the nose before I commence the surgical manipulations. Besides, while operating I have constantly in view both the color of the face and the respiration of the patient, which I consider even more important for the surgeon to observe than to feel the pulse. When surgeons are operating on distant parts of the body, and can not watch the work of the administrator of chloroform, accidents are most apt to happen.

The recumbent posture I consider essential for the safe administration of any anesthetic, whether it be chloroform, ether, or ethyl; hence these agents are not safe remedies at the hands of dentists, who place their patients in a sitting posture. Preparatory to the inhalation of the bromide of ethyl the only precaution I take is to loose the neck-clothing and have the patient lie down with the head only slightly elevated.

*My experiments have taught me that the mode of administering the ethyl should differ totally from that used in giving chloroform.*

Instead of a chloroform vapor freely diluted with atmospheric air, a saturated ethyl vapor must be inhaled to the exclusion of atmospheric air in order to obtain speedily and effectually narcosis.

In my early experiments with this new agent I had not yet discovered this fundamental principle, and hence did not obtain good results. I voted bromide of ethyl a failure, because, in common with other experimenters, I was too timid, or rather I should say too ignorant of its peculiarities, to push the ethyl vapor in the concentrated form which I have since found necessary to obtain good results. By my present method of administering it I can obtain perfect ethylization in patients in from twenty to sixty seconds, and have no after-consequences of nausea or dullness of feeling.

The best inhaler for the giving of the bromide of ethyl is a thick towel folded into the form of a small cone with closed apex. Between one of the folds of the towel I place a sheet of paper, which makes the cone nearly air-tight. The base of the cone must be wide enough to inclose both mouth and nose. The soft material of which the inhaler is made enables the rim to be kept firmly in contact with the



face, so as to exclude air from entering. I always instruct the patient how to make long inspirations, and inform him that he must do this, notwithstanding the fact that he will feel somewhat stifled. I also try to give him confidence by assuring him that a very few inspirations will put him to sleep. Usually I make him go through the process of strong respiratory movements in advance, so that he will know exactly how to proceed. Into this towel cone I pour about one dram of the bromide of ethyl, and immediately invert the inhaler over the nose and mouth of the patient, holding its edge down firmly over the face. There is no fear of creating asphyxia, as all air can not be excluded, and the height of the cone makes a considerable air-chamber into which the patient breathes.

Children usually struggle to escape from the apparatus. *The cone, however, must not be removed from the face for an instant until anesthesia is produced.* At first some patients will resist the breathing of the vapor, but there is no fear that they will not catch their breath in time. Should children cry, it only insures inspiratory efforts, which the more surely and quickly will bring about the introduction of the vapor into the lungs. As a rule, a dozen full inspirations are all that are needed to produce deep narcosis. I recognize this desirable condition by a stoppage of all struggling. I have had deep sleep brought on by the sixth inspiration, when complete relaxation ensues, with quiet breathing, and an absence of reflex irritation should the conjunctiva be touched. The patient retains the usual healthy color of lips and cheeks as if in ordinary sleep, and the pulse becomes slower and stronger as the narcosis becomes profound. Thirty seconds, as a rule, is sufficient to bring about this desirable condition and have the patient ready for operation.

I have not found this anesthetic sleep last more than two or three minutes, often not so long. Usually the patients awake suddenly and as completely as they would do from ordinary sleep. They are able to get down from the operating-table without assistance and walk off without staggering, and with brain clear to answer correctly any question; in fact, quite themselves.

It took me some time to acquire such confidence in the safety of the remedy as to apply it in the concentrated form needful to obtain its fullest benefits. To the uninitiated it looks like cruel work to keep the cone of a saturated ethylized vapor over the face of a struggling patient. *I am convinced, however, that in no other way can quick, complete, and safe anesthesia be obtained by it.* Fortunately the struggling is very soon over, and quiet sleep speedily ensues.

My experience with the bromide of ethyl will now exceed four hundred cases, of which upward of three hundred are within the past year. I am beginning to be familiar with its administration and its effects. *I know know what is to be obtained by it and what not to expect from it.* I give it without hesitation in any case to avoid painful manipulation. I have used it as often as six times a day, and I administer it, on an average, certainly once every day. In the last week I have given it fifteen times. For office use I find it invaluable, upon account of its promptness, efficiency, evanescent nature of the anesthesia induced, the absence of nausea, and the perfect comfort with which patients operated upon can leave my office within a few minutes after the ethylization. Its use in my every-day experience does not interfere with the routine of office practice, nor occupy more time than I give to an ordinary office-consultation.

Those who will use it by a single inhalation to produce a short, deep sleep, and not resort to a mal-administration of this very valuable, powerful agent for a continued anesthesia, which it is incapable of sustaining in safety and in comfort, will become as enthusiastic as I am over its brilliant results. They will in time learn to consider it, as I do, the most perfect of anesthetic agents for quick, painful surgical work. It can never take the place of chloroform or sulphuric ether where any heavy operations are to be done. These well-known and tried anesthetics must continue in favor for all tedious operations, and will be used in minor surgery by those who manipulate slowly and who do not have prompt, quick assistants. But when one can take advantage of a primary anesthesia from the first administration of the bromide of ethyl, and having made every preparation in advance, will manipulate quickly, the new anesthetic leaves nothing to be desired.

**SPONGE-GRAFTING.**—Dr. P. W. Perkins Case writes on this subject to the British Medical Journal as follows:

My notes furnish six successful cases of sponge-grafting. All I have tried have had the sponge completely transformed before the patient's discharge, with one exception, viz. a woman who, before complete transformation had taken place, left the infirmary.

Our method is to get the finest Turkey sponge, free from grit, etc., and slice it as thin as possible, soak it in acid nitro-hydrochloric oil for two or three weeks, till all the calcareous and silicious matters are dissolved, then after repeated washings with water it has a very soft,

velvety feel; this, neutralized by washing with liquor ammonia and steeping in carbolic-acid solution one to twenty for twenty-four hours, is ready for use.

A healthy granulating surface is required for it; we prefer that of a burn, especially if there have been loss of subcutaneous tissues. First, we gently scratch the granulations till they bleed slightly, then place pieces of this sectioned sponge about the size of a shilling on the bleeding granulations, and they soak up blood, which, coagulating in the meshes of the sponge, forms thereby a temporary adhesion. The superficial wound-surface, if less than two inches square, we entirely cover with sponge; if more than about two inches square, we cover it about half irregularly with pieces of that size, and dress it after the Listerian method with oiled silk, six or eight piles of sanitas gauze, gutta-percha tissue, and bandage. Sanitas lotion is generally used afterward at the dressing, it being not so irritating as carbolic acid. The dressings are usually taken down the second day, and the grafts are then found firmly adherent by the coagulum, and comfortable; afterward dressed every second day; but great discharge requires daily dressing.

Dr. J. Ferguson mentions one of his cases that went wrong. He says: "The patient complained of much pain extending up the limb, and the appearances of erysipelas were found spreading from the ulcer upward," and "the patient declared himself the subject of idiopathic erysipelas." Three similar cases I have seen, two of them being Dr. Ilott's. I have no notes; but with these, from the seventh to the tenth day, the same occurred locally, and in each there was a febrile state of the patient, but, in addition, the sponge with the pus in its meshes was putrefying, and only removal of the sponge by charcoal poultices, complete cleansings, and saline medicine reduced these symptoms. We therefore considered each to be local blood-poisoning; and afterward, when treating a large granulating surface, we placed grafts irregular (as before mentioned) to obtain the best possible means of cleansing the grafts and lessening the surface of sponge for absorption. Dr. Ferguson's may have been similar.

Like him, we also found, after the removal of the grafts by poulticing, and a healthy state restored, "that what had been the type of indolence and obstinacy among such sores was now the picture of healthy action—the surface abundantly vascular, and standing well up toward the level of the skin. The simplest dressings were now sufficient to promote repair."

The sponge, like a catgut ligature, appears to become completely

organized. The graft, partially filled with clot, becomes paler in color, and especially so at its edges, then more of a jelly-like and homogeneous consistence, and at the margin it will become lost in granulation-tissue, having no line of demarkation; this invasion continues from without inward until the last little central island of sponge-texture, as such, disappears.

As far as I have observed, sponge does not appear to be transformed into epidermis; if eventually to cutis vera, I have so far had no means of determining; but in a patient, whose ulcer of sixteen years' existence I grafted on August 9th last (it then being fiddle-shaped, over the front of the lower third of his right leg, six inches long, and about two and three quarter inches wide at each side, and one and three quarter inches at the middle), it duly transformed to granulation-sponge grafts equal to about half its superficial area; but I am yet waiting, and I fear in vain, to see the transformation into epidermis completed. Cuticular covering has gone in considerably from the margins, but now proceeds very slowly. In a small wound, and especially in a recent burn if small, this want of cuticle is rarely experienced over the soft parts, because of marginal growth and drawing on the surrounding skin.

ON THE PRACTICAL APPLICATION OF SPONGE-GRAFTING.—Prof. Hamilton, of Aberdeen, whose articles on Sponge-grafting we copied last spring, writes to the *British Medical Journal* the following in regard to the practical application of the procedure:

The first experiments I made were by placing a thick slice of sponge in the wound, sufficient to at once fill up the gap caused by the loss of tissue. There are several objections to this procedure, the chief being that a mass of sponge three quarters to one inch thick, placed over a suppurating wound, becomes soaked with pus, and prevents any free drain from taking place. The pus so accumulated is almost sure to putrefy, and so interferes with the process of organization going on in the deep layers. The danger of contact of such a putrefactive mass with an open wound, although less in the case of one that is granulating, is probably not to be underestimated.

I have, accordingly, generally found that in such cases it is necessary to cut off the superficial parts of the sponge, leaving the thin layer, which had become infiltrated with organizing tissue, adherent. All this inconvenience can be avoided by adjusting the sponge in successive thin layers over the wound. These layers are not more than

an eighth of an inch thick, and must be cut in large slices with a perfectly regular surface. The only method I know by which this can be accomplished is by means of a freezing microtome. I happen to possess a large microtome suited for the purpose, which I employ for cutting sections of the entire brain. It holds an entire Turkey sponge, and when the latter is frozen the whole mass can be cut into perfectly regular slices of any desired thinness. Such a layer can be laid with the greatest facility over the wound, so as to fit into all its irregularities. In a few days the first layer becomes organized. A second can then be placed over this, and so on, a mass of tissue being thus, in course of time, built up. There is no bagging of pus by this method of applying the sponge, and the danger of putrefaction occurring is reduced to the minimum.

Another precaution that is necessary is, to see that where the wound is granulating the edge of the layer of sponge does not come into contact with the pellicle of young epidermis at the side. If so, the epidermis will undermine it and cause displacement. There ought to be one interval of about an eighth to a quarter of an inch between the edge of the epidermis and that of the sponge.

Dr. Sanctuary, in the Journal of December 16th, makes the remark that firm pressure is a *sine qua non* in obtaining adhesion. I agree with him so far that when first applied there ought to be firm and equable pressure all over the surface; but I question, after adhesion has once taken place, whether pressure exerts a salutary influence in promoting organization. On the contrary, I should consider that the interstices of the sponge would fill up quicker if the vessels of the granulating part had free play. I should almost say that in the treatment of a granulating wound of the lower extremity it would be advantageous, when the sponge has once taken firm hold, to allow the limb to hang downward, and probably to encourage the patient to take gentle exercise. By this latter means the circulation through the granulation loops will be rendered active; and a certain amount of vascular turgescence is what is really required.

COMPARATIVE ACTION OF THE BROMIDES.—*Le Progres Medical* states that M.M. Cheron and Fouques, having experimented with the three bromides of potassium, sodium, and ammonium, have reached the following conclusions: These salts act, in virtue of their bromine, as moderators of the reflex centers. The bromide of potassium joins to its sedative action on the nervous

centers a depressing action on the muscular system; it is thus a neuro-muscular agent. The bromide of sodium has an action on the nervous centers like that of bromide of potassium, but does not affect the muscular system; it is thus simply a moderator of reflex action. The bromide of ammonium has, in virtue of its bromine, an action on the nervous system similar to that of the other two, while it is also, in virtue of its ammonia, an excitant and diffusible. It is thus at once a moderator of reflex action and a peripheral excitant. Consequently, when it is desired to influence the reflex powers and the muscular system, preference should be given to the bromide of potassium. If, however, we wish to act only on the reflex centers, the bromide of sodium is indicated. Finally, if, leaving the muscular system out of consideration, it is desired to act on the nervous centers to influence the circulation and to affect the blood-pressure, the bromide of ammonium will most probably give the required results.

**NEW OPERATION FOR SPINA BIFIDA.**—Mr. A. W. Mayo Robson showed a child six weeks old, upon whom, when six days old, he had performed a new operation for spina bifida. The redundant parts removed by the operation were also shown. After the removal of these parts, and after stitching up the arachnoid over the spinal canal, periosteum from a rabbit was inserted between the meninges and the skin so as to cover up the gap in the bones. The wound had perfectly healed; the skin over the lumbar region was quite level; there seemed to be no tenderness on pressure; the child looked strong and healthy. The sac, examined by Mr. F. H. Mayo, was found to be of the size and shape of half a swan's egg, the wall consisting of true skin and subcutaneous tissue lined by serous membrane. At one point the sac was very thin and transparent, appearing to consist only of the serous membrane covered by a thin layer of epidermis, when fresh minute blood-vessels could be seen to ramify over it. Mr. Robson drew attention to the following points: (1) The operation was performed with full antiseptic



precautions, eucalyptus air being used instead of carbolic spray. (2) The meninges were closed by uniting the serous surfaces, as in peritoneal surgery. (3) The transplantation of living periosteum and its continued vitality; it had not yet, however, formed new bone, but already the covering of the canal had a greater than mere skin firmness. (4) The entire absence of bad symptoms in the child operated upon at so early an age was noticed. (British Medical Journal.)

ON THE EFFECT OF SALICYLIC ACID.—Its ordinary effects are, difficulty in hearing, ringing in the ears, headache, vertigo, drowsiness, and delirium. During fever the temperature is considerably lowered; after a large dose sometimes profuse sweats occur, then urticaria and erythema, nausea, vomiting, diarrhea, seldom albuminuria [blood from the kidneys. *Translator*]. A few authors mention difficulty in breathing, either a simple dyspnea or hard inspiration, with or without slowness of the same. Dr. Quineke believes the impaired respiration the most common phenomenon of salicylic acid. Its continued use is always accompanied with very hard but not slow breathing; the frequency never changed in his experiments; also the pulse was not changed. The doses causing such effects were different. Dr. Quineke reports a case having these symptoms, the patient dying from hyperemia of the brain due the drug, although the dose has been only an ordinary one. The impaired respiration here is similar to that of diabetes, and judging that a certain substance (acetic ether) produced by diabetes be the cause of that phenomenon, and on the other hand that only a small quantity of the salicylic acid could be detected in the organs after death, Dr. Q. believes that a similar substance and not the drug directly might produce the impairment of respiration. (Translated for the AMERICAN PRACTITIONER from *Berlin Klin. Woch.*)

ON ALBUMINURIA BY PROF. SENATOR.—Among the symptoms of chronic and acute morb. Bright's, albuminuria requires the most attention not on account of the loss of albumen. Half a



pound of meat would replace that loss for a week in ordinary cases. But it gives the best control over the sickness. Perhaps the excretion of albumen is also an irritant to the kidney. Sometimes more albumen has been excreted than imported and not of the original quality (that of the egg), but as it is in the serum and globulin. The medical treatment of Bright's disease has not been successful (iodide of potass. might be excepted in certain cases). So much more stress has to be laid on the hygienic condition, and especially the diet. It is recommended to give, instead of large meals, small quantities of food often, because it is observed that the excretion of albumen is increased during digestion.

Lehmann and Stokvis, and some others, showed that albumen injected into the blood-vessels or in the stomach increases the excretion. Therefore eggs should not be allowed to albuminuric patients. But even meat has a similar influence, also cheese. We omit the theory of the phenomenon. Besides the increased albuminuria such a diet would increase the quantity of urea, phosphoric acid, and other final products, and thereby increase the danger of uremia. The consumption of meat should be restricted at least to white meats and fish. Of the vegetables only the leguminose have to be excluded. In regard to these and the fats the condition of the stomach has to be considered. They form the most important food to these patients. Alcoholic liquors have been empirically recognized as irritant to the kidneys, but Penzolat proved that lately for athyl and amyl-alcohol by experiments on animals. Nevertheless, mild wines might be given, but no whisky, brandy, or beer. Spices and smoked meats are injurious. Milk diet is of greatest value, but it can not be followed exclusively because it would not furnish either enough food nor in good proportion; bread and so on have to be added. Though the alkalies are irritants to the kidney, saline and alkali-saline waters improve the nutrition, probably by influencing the digestion and the condition of the blood, which, according to English authors, might be presumed to be the primary cause of albuminuria. Attention to the functions of the skin has always

been recognized as a matter of the greatest value. Free action of the skin relieves the kidney; there is not so much confluxion of blood, not so much water goes through, and experience shows too that less albumen is lost. It is recommended to keep the skin in permanent transpiration. After the use of saline baths the skin remains turgescient for some time afterward. The patients ought to be kept in bed. Besides a freer transpiration there is less wasting by muscular action. Quietude of the mind is another point of consideration. It is a well-known fact that fright, vexation, and so on increase albuminuria. So does menstruation. A special care at this period is required. A climatic cure combines all these requirements; for the poorer class hospitals offer a compensation. (*Ibid.*)

DR. BRUNTZEL reports the extirpation of the left kidney for a fibroma of its capsule weighing thirty-seven and a half pounds. Recovery. This is the seventy-seventh case published, and refers to a single lady of thirty-three years of age, who eight years ago observed the tumor, and had consulted several gynecologists of repute some three years ago. All refused an operation on account of her emaciation. Her general condition improving showed that the tumor was benign, but its anatomical character could not be determined. In the operation an incision was made from the xiphoid process to the symphysis. The tumor was found to be retro-peritoneal; the peritoneum was incised in the median line, and carefully taken from the tumor without much difficulty except near the descending colon. There was profuse bleeding from the vessels leading to the tumor. After the removal of the tumor the life of the patient was endangered by the narcosis. When cleansing the wound the ureter was found cut through, but no kidney could be discovered, for that had been removed, imbedded in the tumor without any degeneration of its substance. The suture of the posterior peritoneum was difficult on account of the repeated prolapse of the stomach. The four edges of the incised peritoneum were united, those of the right side and those of the left side were sewed together,

forming two cavities as before by the tumor, but communicating above and underneath. The open retro-peritoneal cavity was drained in front on account of the weakness of the patient. A drainage through the lumbar muscles was intended. Strict Listerism. The recovery was interrupted by the bursting of the intestine, probably the descending colon whose mesentery was closely attached to the tumor. The fistula healed up in a short time. The other complication was paralysis of both radial nerves. Faradization was resorted to for many weeks. When the patient was up again her weight was seventy-seven pounds exactly, twice as much as the tumor. But now the lady rejoices in perfect health, is able to walk and work. (*Ibid.*)

PROF. SOMMERBRODT reports a case where repeated hypodermic injections of tincture iodi. have been given for struma. Once the needle pierced in very deep, it was drawn back immediately and the injection made carefully. But at the same time the patient, a young, healthful girl, said with a hoarse voice: "I can't talk any more." After that she came under the treatment of Prof. Sommerbrodt, who found the left vocal ligament paralyzed. Faradization was resorted to daily for months without any result. There was not aphonia, only weakness and hoarseness which became worse afterward. A repeated laryngoscopic examination showed a compensative inaction of the intact ligament, which was lost afterward. At first the left recurrent nerve was paralyzed entirely and the right one partially, then this last paresis decreased for a while but became worse again. Prof. S. declared it a reflex paralysis contrary to McKenzie's opinion, who had published a similar case. (*Ibid.*)

DR. WALL reviews twelve cases of chronic diphtheria. He says the course of the disease is different in the pharynx; the membranes are not removed there so soon as from the tonsils, and there is a constant source of contagion. If the secretion is profuse the disease can not be overlooked, but that is not always the case; he had twelve cases where his rhinoscopic examina-

tion revealed the nature of the discomfort. Large ulcers and destructions were detected. Impaired hearing and pain in the eyes have caused an examination. There was always a pain in the eye, generally on one side, spreading over the head, especially when true ulcer was at the basis of the cranium. The ulceration resisted sometimes every treatment and came down to the soft palate and even the esophagus. Local complaints became very severe sometimes, with a general debility without fever. The ulcers were similar in character to those of syphilis or tuberculosis. Dr. Wall says diphtheria gets its most destructive character in cases where hereditary syphilis, scrofulosis, or tuberculosis could be traced.

The treatment is tedious; a solution of carbolic acid, five to eight per cent, powdered iodoform, and boric acid are the best remedies, assisted by the frequent use of the nasal douche. These strong solutions must be used strictly at the place; weaker solutions might be used in the atomizer. The anti-syphilitic treatment in doubtful cases must always be postponed. (*Ibid.*)

PROF. CZERNY gives a few hints in regard to his new method of extirpation of the womb from the vagina. First he carbolizes even the abdominal cavity, secondly he makes the circumcision of the vaginal apex as wide as possible. He says a cut into the bladder is not important; he opens the abdominal cavity before or behind the womb; he compresses the aorta. A close suture of the vaginal wound is not necessary, sometimes unfavorable. As after-treatment he favors strict Listerism with iodoform. (*Ibid.*)

DR. WOLBERG reports a return of scarlatina immediately following the desquamation. The child died. No post mortem. (*Ibid.*)

DR. ELLINGER says scoliosis of scholars can be prevented by holding the book to the right and by writing alternately with the left hand. (*Ibid.*)

DR. WITTHAUER recommends for whooping-cough: Tincture eucalypti, 3.0; glycerin and syrup, āā 15.0; aq. fort. 100.0. A dessertspoonful every three hours. For babes one and a half to four years of age the dose is five to eight drops, in sweetened water, every three hours. He also recommends the inhalation of the tincture. He has treated only four cases, but with a decided effect. (Translated for the AMERICAN PRACTITIONER from *Memorb.*)

DR. KERSCH has made experiments with iodide sod., potash, and ammon. on a large scale. Iodide of ammon. produced iodism soonest. He took five grams every day for ten days; only the first dose caused poisonous symptoms; he gave three-gram doses to other patients, which, after some iodism after the first dose, was borne pretty well except when the dose was increased. The organism accommodates itself to any quantity of it. These iodides are transformed very rapidly, causing sometimes salivation, sweats, increased urination, one half to one quart more in twenty-four hours, eruption on the skin (especially iodide of ammon.). Seventy-two hours after its administration not a trace could be detected by amylum, chloroform, or sulphuret of carbon, neither in the urine nor in the secretions of the nose, the vagina nor in the feces, epidermis, nails, hair; only in a few cases the acne-pustules showed some traces. But twenty-four hours later iodine could be detected again by amylum. That fact explains the cumulative effect of the drug after a continued use even in small doses. All individuals were attacked alike only that the saturation appears sometimes a little later. The accommodation required by a prior iodism diminishes after a while. Dr. Kersch concludes: Iodide of potass. ought to be given in two to three-gram doses in tea at bed-time, to be continued regularly after the iodism (one in two days) has passed over. Should iodism re-appear, the drug has to be discontinued for four days. (*Ibid.*)

### **Notes and Queries.**

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THE KENTUCKY STATE MEDICAL SOCIETY will meet in Louisville, in Public Library Hall, at two o'clock, on the first Wednesday in April next. The president of the society for the year is Dr. A. D. Price, of Danville. The chairman of the Committee of Arrangements and Credentials is Dr. Coleman Rogers, of Louisville. The remaining committees are distributed as follows: On Improvements in Practical Medicine, Dr. L. P. Yandell, Louisville; on Improvements in Surgery, Dr. W. M. Fuqua, Hopkinsville; on Improvements in Pharmacy, Dr. J. S. Moore, of Marion County; on Obstetrics, Dr. Preston B. Scott, Louisville; on Hygiene, Dr. J. J. Speed, Louisville; on *Materia Medica*, Dr. T. B. Greenley, Jefferson County; on Ophthalmology, Dr. J. Hale, Owensboro; on Otology, Dr. J. H. Letcher, Henderson; on Dermatology, Dr. J. A. Ochterlony, Louisville; on Epidemics, Dr. Ed. Alcorn, Hustonville; on Vital Statistics, Dr. S. A. Foss, of Jefferson county.

Besides the regular work of the society, it is understood that there will be a number of volunteer papers, embracing many interesting subjects, read by members. We make no doubt that ample time will be afforded for the discussion of all scientific matters brought before the society, while from every side come assurances that the attendance will be large and the proceedings spirited and full of interest. Visiting members will receive a genuine home welcome from their brethren resident in Louisville. In conclusion, the American Practitioner begs to invite not only its friends and neighbors in Kentucky and Tennessee, Indiana, Illinois, and Ohio, but as for the matter of that, in any other adjacent or distant sovereignty, to come and take something with us on the occasion referred to. All will be welcome,

and the more who come the better we will like it. April is a month which contains the letter R, and the *scolopax delicatula* will be at its best.

THE ESTABLISHMENT AND MAINTENANCE OF BRAIN-HEALTH. J. Batty Tuke, M.D., F.R.C.P., F.R.S.E., writes, in the Medical Press, that he held it to be a well-ascertained physiological fact that the brain-cells were organs which could be acted on for good or for evil, and that they were directly subject to the laws of health. It might be said, in passing, that as a nation we had decided to adopt a system of education which was in itself the greatest brain- tonic at our command, a remedy which, if not altogether a specific, must strike deeply at one great cause of crime, misery, and degradation. Especially in our great cities there was a considerable class, the members of which might be termed moral idiots. A child brought up, or rather dragged up, in a cellar, whose parents were thieves by profession, whose companions were equally degraded, who was surrounded from his earliest days by scenes of debauchery and wickedness, must almost inevitably fail to develop a moral sense. Right was wrong to him, and wrong was right. Strictly speaking, this was his moral sense. Some of them might feel at times inclined to grumble at the expense and working of the education act; but the grumble would cease if they reflected that they, as a nation, were doing their very best to remove a serious opprobrium from society. The compulsory education act was something like the compulsory vaccination act. Society had determined, in the one case, to apply a preventive to the spread of a serious and dangerous bodily disease, and in the latter, to a grave and serious moral disease.

In speaking of the influences which act for good or evil upon the brain, Dr. Tuke alluded first to those over which the individual had no control; and second, to those over which every man and woman could exercise control. The influences over which the individual had no control were those connected with his antecedents and upbringing. A man might be handicapped



in life by the mistakes or faults of his ancestors ; and, different from the race-horse, he had to carry weight in the race of life according to his imperfections, not according to his advantages. There was a pretty general consensus of opinion that consanguineous marriages were, on the whole, to be deprecated. If they tasked their memories, and tried to remember how many perfectly healthy families they had known—families without a history of consumption, gout, rheumatism, affections of the nervous system, etc.—he feared the number they could estimate would be very small ; and if they took into account the tendency of such diseases to become intensified in the children of cousins, he thought they would agree with him that consanguineous marriages involved a risk which it was not well to incur. Alluding next to a question which was often put him by anxious parents, whether it was advisable to allow their children to marry into families in which nervous disease was known to exist, he remarked that of course, as an abstract proposition, there was but one answer to the question—that it was not advisable ; but while he did not advocate marriage under such conditions, he expressed the opinion that there was not much more, if any, reason for avoiding a family in which there was a history of nervous instability than there was for avoiding families in which other forms of hereditary disease existed. Passing to consider the practical questions connected with the rearing of the infant and child, he said every child's future history depended on the food it got and on its surroundings. Much depended on the mother ; if healthy, she should suckle her child, but not for too long. He had met with many cases in which the sole ascertainable cause of nervous symptoms in young children was their being too long suckled. But the mother herself must be well fed, and this brought him to the consideration of another question.

In some respects he believed the food of the working classes in Scotland was improved, partly because wages were higher, partly because in the new workmen's houses the means of cooking were better, and partly because new articles of diet had been

introduced into the market. But he also believed that it had become deteriorated in a very important item—porridge and milk—for which had been substituted a much less nutritious, and in itself a somewhat deleterious article of diet—tea and bread. The physiologist would tell them that porridge and milk was a "typical" food; that was, that it contained all the necessary constituents of food in the most perfect proportions. He had nothing to say against the staff of life so long as it was sound in quality and well fired, except that it was not such a typical food stuff as oatmeal, and, weight for weight, did not possess as equal power of nutrition as porridge. He advised all workingmen, whether they worked in the workshop, in the office, or in the study, to feed themselves, their wives, and their children, at least once a day, on the most perfect form of food which God has given them—porridge and milk. The next subject which naturally suggested itself as exercising an important influence on the child's brain-cells was education.

With every respect for the management of public philanthropic institutions, he would much rather see a child of his less well-dressed, less well-fed, living early into real life, his brain-cells absorbing real experience, and becoming educated by normal vicissitudes, than see him the best boy in the best hospital in the country; and, speaking as a physician and a physiologist, he would advise all to avoid the temptation, should it be presented to them, of sending their children to any institution when by any sacrifice they could keep them at home. Of course, a child had to encounter greater dangers at home than when shut up in a monastic institution. They were overworked, and overworked themselves, at school. One of the great causes of overstrain in early youth was the vicious system of offering prizes for competition. It deflected the mind of the child from the main aim and object of its study, and often defeated the object which it was hoped to obtain. The youthful mind must not be pressed too far in the direction of abstract facts and theories. Our own educational system was running somewhat wild in this direction, and the child's brain did not get time to

assimilate the food it got. A sort of brain-dyspepsia or indigestion set in.

His experience might be exceptional, but it tended toward the opinion that the rising generation was not so well acquainted with the standard literature of our own country as boys and girls were twenty-five or thirty years ago. He dared say its knowledge of the hard facts of history was more exact; the rules of arithmetic might be more thoroughly understood, but he doubted very much whether "Robinson Crusoe," the poems of Burns, the "Pilgrim's Progress," Sir Walter Scott's glorious novels in prose and verse, Prescott's "Conquest of Mexico and Peru," and such like educational influences, were as much at work as they used to be. Careful reading of such standard books helped the boy's and girl's brain to assimilate the tougher food it received at school, and introduced a digestive power which helped to diffuse the aliment throughout the whole mental system. Having pointed out the necessity of teachers knowing how to administer intellectual aliment carefully and thoughtfully, and how brain-health suffered nowadays, if there was truth in the statement that the pupil was being made for the school, not the school for the pupil, Dr. Tuke remarked that a great deal had been said and written of late about the overworking of girls and young women in schools and colleges, and his friend, Dr. Clouston, had come forward as the champion of health and ignorance for women. He could not help thinking that Dr. Clouston had overstated the position of matters; that he had based his opinions more on the observation of isolated cases than on the general condition of highly-educated women; that he had mistaken the wail of the one for the murmur of the many. No doubt, a certain number of young women suffered and broke down while studying, but this did not necessarily imply that study was the cause of the breakdown. Idleness and ignorance were much more prolific causes of disease among women than overwork. They were the main producers of hysteria, and all sorts of vaporish complaints, of many ills and evils, and of inanity, if not of insanity. As a matter of fact, it was not an easy thing to

overtask the energies of the brain by work. It was not work, but worry that killed the brain. The latter, he feared, must be ever with us all. The most highly-educated and hard-working women he had the honor of knowing were eminently healthy. Perhaps this might be the "survival of the fittest;" but even granting that it was so, the more women worked, the more fit women they would have. But breakdown from overstrain did occasionally take place, and the first really important symptom was sleeplessness; when that set in there was cause for alarm. Loss of sleep was brought about thus: When the brain was being actively exercised there was an increase of blood in its vessels—this was spoken of as "functional hyperemia." If they continued the exercise of the brain-powers too long, there was a tendency for the blood to remain in too great quantity, from the cells becoming exhausted and not being able to control the vessels. In sleep the amount of blood was diminished, and sleep could not be produced if this functional hyperemia persisted. In the absence of sleep, the cells could not recover themselves, and their activity became impaired. Headache, loss of appetite, and general listlessness followed; then changes in the character of the blood, and the trains of symptoms so ably described by Dr. Clouston. As soon as a child or young person developed continuous headache, work should be discontinued at once. In conclusion, Dr. Tuke remarked that most men working in the same department of medicine as he did recognized that if there was a hope of diminishing the amount of brain-disease, it was to be effected by preventive medicine, and he had, therefore, directed their attention more especially to the transgressions of the father than to those of the son.

ABU ALI EL-HOSEIN IBN-ABDALLAH IBN SINA COMMONLY CALLED AVICENNA.—The *Canon* of Avicenna was to the medical world the book of books, the Koran of the healing art, the rule and confession of faith of all physicians throughout Persia, Syria, Arabia, and the continent of Europe for a period of well nigh six hundred years.

The works of Hippocrates, the voluminous commentaries of Galen, and the writings of Avicenna have exercised a greater influence, and have maintained their sway over the minds of medical men for a longer time than any and all other authorities the world has ever produced. The works of this immortal triumvirate were not only the great store-houses of facts and observations, but they have been the judicial authorities in medicine, the decisions of the final court of appeals, beyond which no case could be carried.

By way of honorary distinction, so celebrated was Avicenna's reputation, he was surnamed Scheikh-Al-Reis (or Scheikh-Reyes), Prince of Physicians.

Avicenna was born about the year 980 A.D., at Afshena, one of the many hamlets in the district of Bokhara. His mother was a native of the place; his father, a Persian from Balkh, filled the post of tax-collector. Avicenna was put in charge of a tutor, and his precocity soon made him the marvel of his neighbors, as a boy of ten who knew by rote the Koran and much Arabic poetry besides. From a green-grocer he learned arithmetic; and higher branches were begun under one of those wandering scholars who gained a livelihood by cures for the sick and lessons for the young. Under him Avicenna read the *Isagogue* of Porphyry, and the first propositions of Euclid. But the pupil soon found his teacher to be but a charlatan, and betook himself, aided by commentaries, to master logic, geometry, and the *Almagest*. Before he was sixteen he not merely knew medical theory, but by gratuitous attendance on the sick had, according to his own account, discovered new modes of treatment. For the next year and a half he worked at the higher philosophy, in which he encountered greater obstacles. In such moments of baffled inquiry he would leave his books, perform the requisite ablutions, then hie to the mosque, and continue in prayer till light broke on his difficulties. Deep into the night he would continue his studies, stimulating his senses by occasional cups of wine, and even in his dreams problems would pursue him and work out their solution.

Forty times, it is said, he read through the metaphysics of Aristotle, till the words were imprinted on his memory; but their meaning was hopelessly obscure, until one day they found illumination from the little commentary by Alfarabius, which he bought at a book-stall for the small sum of three drachmæ. So great was his joy at the discovery thus made, by help of a work from which he had expected only mystery, that he hastened to return thanks to God, and bestowed an alms upon the poor. Thus, by the end of his seventeenth year, he had gone the round of the learning of his time; his apprenticeship of study was concluded, and he went forth a master to find a market for his accomplishments.

His first appointment was that of physician to the emir, whom the fame of the youthful prodigy had reached, and who owed him his recovery from a dangerous illness. Avicenna's chief reward for this service was access to the royal library, contained in several rooms, each with its chests of manuscripts in some branch of learning. The Samanides were well-known patrons of scholarship and scholars, and stood conspicuous amid the fashion of the period, which made a library and a learned retinue an indispensable accompaniment of an emir, even in the days of campaign. In such a library Avicenna could inspect works of great rarity, and study the progress of science. When the library was destroyed by fire, not long thereafter, the enemies of Avicenna accused him of burning it, in order forever to conceal the sources of his knowledge. Meanwhile he assisted his father in his financial labors, but still found time to write some of his earliest works.

The commencement of his *Canon of Medicine* dates from his stay in Hyrcania. He subsequently settled in Rai, where about thirty of his shorter works are said to have been composed. But the constant feuds which raged between the regent and her son compelled the scholar to quit the place. He entered into the service of a high-born lady; but ere long the emir, hearing of his arrival, called him in as medical attendant, and sent him back with presents to his dwelling. Avicenna was even raised to the

office of vizier; but the turbulent soldiery, composed of Koors and Turks, mutinied against their nominal sovereign, and demanded that the new vizier should be put to death. Shems Ad-daula consented that he should be banished from the country. Avicenna, however, remained hidden for forty days in a sheikh's house till a fresh attack of illness induced the emir to restore him to his post. Even during this perturbed time he prosecuted his studies and teaching. Every evening extracts from his great works, the *Canon* and the *Sanatio*, were dictated and explained to his pupils; among whom, when the lesson was over, he spent the rest of the night in festive enjoyment with a band of singers and players.

On the death of the emir Avicenna ceased to be vizier, and hid himself in the house of an apothecary, where with intense assiduity he continued the composition of his works. The new emir of Hamadân, discovering the place of Avicenna's concealment, incarcerated him in a fortress. At length, accompanied by his brother, a favorite pupil, and two slaves, he made his escape out of the city in the dress of a Sufite ascetic.

During the remaining ten or twelve years of Avicenna's life he began to study literary matters and philology, instigated, it is asserted, by criticisms on his style. But amid his restless study Avicenna never forgot his love of enjoyment. Unusual bodily vigor enabled him to combine severe devotion to work with facile indulgence in sensual pleasures. His passion for women and wine was almost as well known as his learning. With much gayety of heart, and great powers of understanding, he showed at the same time the spirit of an Aristippus more than that of an Aristotle at the courts of the wealthy. Versatile, light-hearted, boastful, and pleasure-loving, he contrasts with the nobler and more intellectual character of Averroes. His bouts of pleasure gradually weakened his constitution; a severe colic, which seized him on the march of the army against Hamadân, was checked by remedies so violent that Avicenna could scarcely stand. On a similar occasion the disease returned; with difficulty he reached Hamadân, where, finding the disease gaining



ground, he refused to keep up the regimen imposed, and resigned himself to his fate. On his death-bed remorse seized him; he bestowed his goods upon the poor, restored unjust gains, freed his slaves, and every third day till his death listened to the reading of the Koran. He died in June, 1037, in his fifty-eighth year, and was buried among the palm trees by the Kiblah of Hamadân. Dr. Foster, in *Annals of Anatomy and Surgery*.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—The Board of Trustees appointed at the last annual meeting of the American Medical Association, charged with the duty of agreeing upon the plan of a weekly medical journal, to take the place of the annual volume of Transactions, and to ascertain how far pledges for its pecuniary support could be obtained from the profession, held a regular meeting in Chicago, on the 17th day of January, 1883. A majority of the members of the board were present, and communications relating to the more important questions to be discussed were received from all the members not present. The president of the board reported that he had caused the printing and careful distribution to the members of the association and the profession at large, forty thousand copies of the programme agreed upon for the proposed journal, accompanied by an equal number of pledges to be signed, and directed envelopes in which to return them. He also reported the total number of pledges received in return, and the number from each State, with such other details as would enable the members of the board to judge accurately concerning the value of the results. Full estimates of the cost of publishing the proposed journal had also been obtained from reliable printing houses in four of the principal cities, and were also submitted to the board. After a full examination of the whole subject, it was unanimously decided that the board should report to the next meeting of the association in favor of the establishment of the proposed journal. Steps were also taken to have all the preliminary arrangements so far matured that the first issue of the journal could be made within thirty days after the next meeting,

provided the association should adopt the recommendation of the board.

But, while the members of the Board of Trustees were thus satisfied that the present number of returned pledges afforded a safe basis on which to commence the journal form of publication by the association, they deemed it very desirable that, at least, five hundred more should be added to the list before the time for making their report, that there might be no reason for doubt or hesitation on the part of the association, when it should be called upon to take final action on the subject.

They therefore directed the foregoing statement to be made to the profession through the medical periodicals, accompanied by the earnest request that those members of the profession who are willing to support the journal, and have not already returned pledges to that effect, would do so by indicating their wish on a postal card addressed to the undersigned, with as little delay as possible.

To those not members of the association the subscription price will be the same as the annual dues of members, five dollars, payable on the receipt of the first number of the journal. Of course the pledges are construed as binding for only one year.

That those who have not seen the circular sent out by the board may judge somewhat concerning the scope of the proposed journal, the following is copied from the said circular:

The journal is to be under the control of the association, through its trustees, and to be issued and supplied in place of its annual volume of Transactions. It will be known as the Journal of the American Medical Association. The trustees will, if they receive a sufficient number of subscriptions, feel justified in recommending to the association the propriety of the change and the adoption of the following plan: To issue a weekly journal, each number to contain thirty-two double column pages of reading matter, and which shall embrace the following departments:

I. Original papers, addresses, reports, etc. This will include all the papers read before the association and its sections which are referred for publication.

II. Leading editorials on the scientific, educational, social, sanitary, ethical, and other interests of the profession.

III. Editorial summary of progress in the several departments of medicine and the collateral sciences, including reviews of new books.

IV. Notices of the proceedings of medical and scientific societies throughout the country.

V. Correspondence, domestic and foreign.

VI. American Medical Association intelligence.

VII. Miscellaneous medical news.

Through the medium of such a journal the proceedings and papers of the association will reach the members much earlier each year, and by its frequent visits and its large amount of additional matter of value it will maintain a much more active interest on the part of the entire membership, while its notices of the proceedings of the several State societies will tend to bring those societies into closer relationship with the national societies, and thereby greatly aid in the extension and usefulness of the social organizations of the whole profession.

All pledges or promises of subscription should be sent to N. S. Davis, M.D., 65 Randolph Street, Chicago, Illinois.

QUININE PILLS.—WM. R. WARNER & CO.—The following, sent us by Messrs. Warner & Co., we insert with great pleasure. The need of doing so has grown out of the fact that some of the seven samples of pills alluded to by the chemist were short in weight and of doubtful purity:

PHILADELPHIA, December 22, 1882.

An analysis of seven samples of quinine pills, obtained without knowledge of the manufacturers, was made and published in the American Journal of Pharmacy by me, and those made by Wm. R. Warner & Co. were found to be correct as to quantity and purity of quinine.

HENRY TRIMBLE,  
*Analytical Chemist.*

THE vacancy made in the office of Physician in Ordinary to the Queen, by the death of Sir Thomas Watson, has been filled by the appointment of Dr. Wilson Fox, and Dr. Owen Rees has been appointed Physician Extraordinary in succession to Dr. Fox. Her Majesty could not have made a better selection.

*Editors American Practitioner :*

According to the desire expressed by the International Medical Congress, at its seventh session, in London, 1881, and in consequence of later discussions on this subject, it has been resolved that the eighth session of the Congress shall be held in Copenhagen. Especially in order to prevent collision with other medical congresses, we beg to request that you will, already now, in your esteemed journal, draw attention to the fact that the eighth session of the International Medical Congress will take place in Copenhagen during the days from the 10th to the 16th of August, 1884.

We are, sir, your faithful servants,

P. L. PANUM,

*President of the Organizing Committee of the Congress.*

C. LANGE,

*Secretary General.*

COPENHAGEN, December, 1882.

JONATHAN HUTCHINSON'S ADVICE TO MEDICAL STUDENTS.—

"If now I were to sum up in one sentence what I have been enforcing, it is this: The secret of all noble life lies in belief, and the characteristic of all noble minds in the vigor with which they believe that which is true. Try to attain belief in the reality of all things; so shall you never want for motives; so shall you be able to live and work without hurry and without sloth. Finally, permit me to commend you this formula: Prize strength, love the beautiful, practice self-denial, and be patient."

In the new German Pharmacopeia three hundred and sixty articles have been struck out, and forty-eight added, a decrease of three hundred and twelve, the whole number being about six hundred. In a new edition of the United States Pharmacopeia two hundred and twenty-nine articles were cut out, and two hundred and fifty-six added, a net increase of twenty-seven, the whole number being one thousand.

BUSINESS NOTICE.—The Indianapolis office of the American Practitioner having been discontinued, all communications relating to the business of the journal should hereafter be addressed to John P. Morton & Co., Louisville, Ky.